

Digital Self-Determination – Everyday Security through Digitalisation and Identity Formation in Greenland

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Declaration of Authorship

These doctoral studies were conducted under the supervision of Doctor Rikke Bjerg Jensen and Professor Klaus Dodds.

The work presented in this thesis is the result of original research I conducted, in collaboration with others, whilst enrolled in the Information Security Group and the Department of Geography as a candidate for the degree of Doctor of Philosophy. This work has not been submitted for any other degree or award in any other university or educational establishment.

Sections from the two publications named in the List of Papers have been integrated into various chapters of the present work, in particular Chapters 2,3,4 and 6. Where sections have been integrated, this is clearly marked.

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Abstract

Greenland is pursuing further independence from its former coloniser, Denmark, whilst building an inclusive democratic state. This process relies on digital technology to both facilitate conversations and connect geographically distant settlements and communities across the vast country. In order to provide the Greenlandic population with access to basic and essential services, the development of suitable and reliable, socially grounded and digitally facilitated solutions is paramount. This thesis explores how the accelerated digitalisation of Greenlandic society is re-defining notions of individual and collective self-determination. In this context, it particularly explores the disruptive and transformative effects of digital technology on postcolonial security asymmetries. To this end, everyday notions and feelings of security and insecurity are examined against the backdrop of rapid societal, economic, political and environmental changes in the Arctic, which have had a significant impact upon local identity formation processes.

The underlying research design was developed with careful attention to the distinct post-colonial field setting in Greenland. Accordingly, a decolonising methodology based on collaboration, reciprocal trust and shared learning was adopted. Through extensive ethnographic fieldwork conducted in Denmark and in Greenland, research findings emerged from field observations as well as in-depth interviews and collaborative mappings with 51 participants.

Drawing on critical feminist security theories as well as digital civics literature, this work explores how Greenlandic citizens develop digital security practices in response to the country's ecologically, politically and socially induced transformation processes. By connecting the participants' individual security concerns with the broader regional context, the findings highlight how digital technology has created transitory spaces in which collective security and identities are cultivated, shaped but also challenged and eroded. These digital "safe spaces" can thereby consolidate experiences of emancipation and empowerment, central to on-going debates on modern identity formation and self-determination in Greenland. The contribution of this research

to security and Human-Computer Interaction (HCI) scholarship is therefore threefold: (1) identification and acknowledgement of the specific effects of increased usage of digital technology on collective security practices in a geographically remote community, (2) emphasis of the need for a broader conceptualisation of digital security as either an empowering or a disruptive factor in identity formation processes using positive and collective conceptualisations of security and (3) a recommendation for more contextualised, pluralistic digitalisation policies.

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List of Papers

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List of Abbreviations and Acronyms

BBC British Broadcasting Corporation

CBPR Community Based Participatory Research

CPR Det Centrale Personregister – The Danish Civil Registration System

DESI Digital Economy and Society Index

EA Engaged Acclimatisation

ECHR European Convention on Human Rights

EEA European Economic Area

EU European Union

GAD Greenlandic Agency for Digitalisation

GDPR EU's General Data Protection Regulation

GNI Gross National Income

GoG Government of Greenland

HCI Human Computer Interaction

HCI4D Human Computer Interaction for Development

IASSA International Arctic Social Sciences Association

ICT Information and Communication Technology

ICT4D Information and Communication Technology for Development

IR International Relations

KNR Kalallit Nunaata Radioa – Greenland’s Public Broadcasting Service

NGO Non-Governmental Organisation

OECD Organisation for Economic Co-operation and Development

SBC Sermersooq Business Council

SDG Sustainable Development Goals

SGA Self-Government Act

SIDS Small Island Developing States

TA Thematic Analysis

TEK Traditional Ecological Knowledge

UGC User-Generated Content

UN United Nations

UNESCO United Nations Educational, Scientific and Cultural Organisation

UNPFII United Nations Permanent Forum on Indigenous Issues

USA United States of America

UXP Unified Exchange Platform

Chapter 1

Introduction

Greenlandic society is undergoing fundamental transitions at a rapid pace. From seeking greater independence from its former coloniser, Denmark, to restructuring its public sector and economy, the country is moving towards more self-reliant, locally shaped and managed systems, reinforcing Greenlandic self-determination both ideationally and practically [1, 2].¹ A key aim of the Government of Greenland (GoG) in this respect is to provide the geographically dispersed Greenlandic population with “more equality, openness and . . . access to democratic processes”, relying increasingly on digital means [3, p.6]. In Greenland, 78 settlements and towns lie spread out along the Western and part of the Eastern coastlines [3, 4]. The smallest settlements count about four to 40 inhabitants while the capital of Nuuk has a population size of about 17 700 [4] (as in [5, p.1]). Given the limited mobility between the smaller settlements, digitalisation promises to further diversify career and personal development opportunities and to improve the accessibility of information and essential services, especially in Greenland’s most remote and hard-to-reach communities.² Being *de jure* Danish citizens, the expansion of Greenland-specific digital services and improved overall digital connectivity might thereby also alter notions and experiences of *de facto* Greenlandic citizenship and hence adds to ongoing identity debates within Greenland.

¹Throughout this work, Greenland (Kalaallit Nunaat) will be referred to by its English name. Also the terms “island” and “country” will be used in reference to Greenland. The word “island” is thereby used as a geographical term, also alluding to Greenland’s inaccessibility by land. “Country” will be used even though Greenland is not a fully independent state. Yet, given its extensive political autonomy, its distinct history and culture as well as its established right to self-determination under international law, Greenland is generally, in official documents and popular outlets, referred to as a “country” and the same principle will be applied in this thesis.

²Throughout this work, the word “digitalisation” will be used when referring to the process of designing and introducing novel digital services while the term “digitisation” will only be utilised in specific reference to the conversion of previously analogue materials into a digital format.

Critical feminist security scholars, such as Heidi Hudson [6–8], have argued that comprehensive societal transitions may affect senses of security on a state, community as well as on an individual level. Conceptualisations of societal transition are thereby not limited to reactions to external threats but encompass any process which might challenge individual and collective notions of self. Further shifting the focus from top-down security responses towards ground-up security practices that emerge in the light of locally identified security needs, critical feminist security literature offers a theoretical framework through which, in the context of this thesis, participants’ everyday security experiences take centre stage. By highlighting the (digital) security practices and concerns that shape and challenge the infrastructures and representations that have informed identity debates in Greenland to date, the present work seeks to bring to light the relevance of critical feminist security literature in understanding these processes. Focusing on concepts including positive, collective and ontological security that foreground security as an enabler of individual and collective capabilities and freedoms, the work contributes to current HCI literature.



Figure 1.1: Apart from the city centre, Nuuk has three outlying districts including Quassussuup Tungaa (pictured in the image above), Nuussuaq and Qinngorput. The Sermitsiaq mountain visible in the background, is an iconic symbol of the Greenlandic capital and has also lent its name to the country’s biggest newspaper, Sermitsiaq.AG (author’s own image, May 2018).

Employing this critical feminist conceptualisation of security, this research provides new insights into how increasing digitalisation might offer novel possibilities to re-appropriate information flows in order to create more accurate, inclusive and self-determined identity narratives in modern Greenland. Taking into account the specific historic legacies and societal structures at play, this thesis addresses the following three questions to gain a better understanding of the underlying everyday practices and emerging mechanisms of collective security that shape and challenge self-determination on a community and an individual level in Greenland:

- (1) How does access to digital technology and digitally mediated networks impact upon individual Greenlanders ability to perform, realise and benefit from their citizenship?
- (2) What are the motivations, opportunities and limitations for Greenlanders to share digital content on social media, within and beyond Greenland – and for what purpose?
- (3) How do digital information sharing practices among Greenlanders influence the representation of everyday Greenlandic (digital and visual) culture?

Through ethnographic fieldwork conducted in Greenland and Denmark, research findings emerged through in-depth interviews, collaborative mappings and field observations with 51 participants. The findings that emerged from the qualitative data are presented across three analytical chapters. Each chapter engages with a specific set of stakeholders and technologies:

- Chapter Five describes Greenland’s digitalisation infrastructures and their roles in national identity formation through an analysis of the relevant Greenlandic digitalisation policies.
- Chapter Six focuses on the everyday experiences of digitalisation through the use of social media, as described and experienced by individual participants.
- Chapter Seven explores online digital representations of cultural heritage communication within and beyond Greenland and engages with voices from the country’s cultural and tourism sectors as well as with the Greenlandic diaspora in Denmark.

HCI in general, and digital civics and Information and Communication Technology for Development (ICT4D) literature in particular, have been exploring some of the opportunities as well as challenges associated with rapid digitalisation in rural or geographically remote communities, highlighting potential disparities springing, for instance, from accessibility and usability

issues (e.g. [9, 10]). The Greenlandic case bears strong resemblance to recent digitalisation efforts in other rural or geographically remote communities including, for instance, Small Island Developing States (SIDS), some of which additionally share Greenland’s colonial background [11–13]. Geographically and structurally isolated from the world’s economic and technological hubs, improved digital connectivity has been discussed by both politicians and HCI scholars as an “enabler for accelerated economic development and social transformation” [11, p.289] in the communities in question. Digitally collapsing geographical distances is thus seen to allow communities who face immobility and social isolation to halt what Manuel Castells called a potential “downward spiral of exclusion” [14, p.IV] caused by rapid technological developments on a global scale. In this context, research from the fields of ICT4D and HCI4D has been consulted throughout the research process, in particular to highlight the roles and importance of local community networks. Yet, significant differences in socio-economic and demographic factors resulting from Greenland’s categorisation as high-income country (see 2.4.2) meant that any contributions to development research would only be superficial. Hence, the contributions of this work lie elsewhere, as noted above.

To date, the Greenlandic digitalisation process has received comparatively little attention and virtually none within HCI or digital civics scholarship. Yet, the Greenlandic context stands out from other, previously studied examples due to, firstly, the specific socio-economic and socio-technical complexities that local digitalisation measures aim to address and, secondly, the relatively high degree of population dispersion. Extending connectivity beyond the reach of the submarine Internet cable ‘Greenland Connect’, that services parts of Greenland’s Western coastline, has accordingly been a major infrastructural challenge for Greenland’s telecommunications monopoly *TELE-POST* as it pushes the global *digital frontier* further into the Northern Arctic (see Figure 1.2). Thirdly, being a high-income country with a colonial background, Greenland’s political status further differs from other places that HCI and particularly ICT4D scholarship has engaged with regarding digital measures to tackle isolation, immobility as well as the consequential socio-economic implications. Over the past decades, Greenland’s colonial history and its future political and economic pathways have been decisive elements in the country’s extensive identity debates and have highlighted the complexities of contemporary Greenlandic-Danish relations.

In this context, digitalisation has, on the one hand, been promoted as potentially enabling a more inclusive dialogue about Greenland’s modern identity formation process [2, 16]. However, on the other hand, the extension of digital infrastructures and services might also be seen to

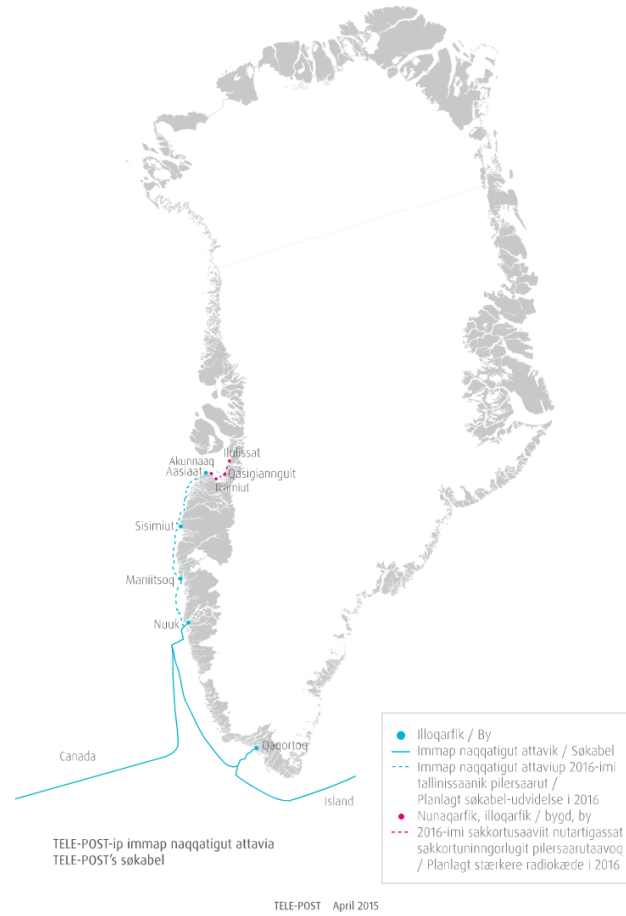


Figure 1.2: This map shows the submarine Internet cable ‘Greenland Connect’. It connects Qaqortoq and Nuuk with landing points in Canada and Iceland. The blue dashed line indicates the northbound extension of the cable which, since 2016, runs to Aasiaat. The pink line is a connection that has not yet been installed (map provided through TELE-POST as seen in [15]).

parallel past modernisation policies which, due to their maladjusted, top-down design inflicted a lasting collective trauma on the Greenlandic people [17, 18]. Greenland’s digitalisation thus lies at a crucial intersection between shaping the modern and preserving the traditional. A more comprehensive understanding of Greenlanders’ use of digital technology in this specific context might therefore also allow for a look beyond the dichotomy which has partly been dominating past identity debates, in which Denmark has often been conceptualised and portrayed as “Greenland’s threatening *other*” [2, p.110]. It can be argued that both the trauma from Greenland’s colonial past but also these dichotomous logics have been undermining senses of security and self within the Greenlandic society [2].

Simultaneous with the political and cultural transformations, rising global temperatures have been affecting everyday life practices of those inhabiting the Arctic region. For instance, retracting and thinning sea-ice has been found to impede local hunting traditions, forcing hunters to restrict their movements to the more stable parts of the icecap near the shoreline to avoid the risk of breaking through the ice [19, p.28]. Experiences of (food) insecurity have further been associated with the destructive impacts of climate change on Greenlandic wildlife as certain species and their natural habitat have been in decline, reducing vital food sources especially for communities who live in remoter settlements [19]. Changing climatic conditions have also been attracting rising numbers of tourists and mining companies due to improving accessibility to Greenland and its natural resources. A development that has been stimulating debates about the diversification of the Greenlandic economy [20]. Global warming has hence had a substantial impact on various aspects of Greenlandic livelihood and traditional societal structures, undermining senses of self-identity. Anthropologist Mark Nuttall notes accordingly that these changes have been “provoking anxiety about community vulnerability and resilience, and the effectiveness of local strategies for responding to short-term and long-term local and regional effects” [19, p.22]. In light of these growing existential threats to local livelihoods in the Arctic, digitalisation has further been debated as a potential tool to foster societal resilience and traditional knowledge preservation [21].

Despite partially still unstable connectivity and high Internet prices, digital social networking services have been enjoying great popularity in Greenland. According to a study conducted by the Greenlandic Agency for Digitalisation in 2018, about 67 % of the respondents were using at least one social media platform on a daily basis [22, p.27]. Embedding the digital in the social-material everyday life of Greenlanders has thus been a relatively novel but, as this research demonstrates, surprisingly pervasive process. Exploring the disruptive and transformative potential of increasing digital technology usage in response to the complex local transformations using qualitative, ethnographically informed research methods, this work offers contributions on a theoretical, empirical as well as methodological level:

- **Theoretical contribution:** This thesis builds on theories of political empowerment as part of the digital civics agenda [23], bridging theories discussed in post-colonial computing and critical feminist security literatures around collective security. This is done to develop a more nuanced understanding of identity formation in post-colonial, geographically remote contexts through digital media, which is currently lacking in most of the digital civics scholarship. In doing so, the work contributes to current HCI and digital

civics literature by expanding on the concept of “digital safe spaces” [24], looking at how these emerge, particularly in the context of ground-up, collective security practices in response to ongoing political, ecological, economic and socio-technical transitions. The analysis of these gendered effects of technology-induced, emancipatory disruptions builds on the work of critical security scholars including Heidi Hudson [6–8], Gunhild Hoogensen Gjørsv [25, 26] and Paul Roe [27, 28].

- **Empirical contribution:** The amount of qualitative data that addresses digitalisation processes in Greenland, particularly in the context of identity formation as the country moves towards digital self-determination, is limited at best. The country’s relevant digitalisation strategies build first and foremost on quantitative insights. The present thesis engages with a range of stakeholders, drawing from and integrating a number of sources (interviews, photographs, participatory mapping, policies) to gain novel, qualitative insights into the broader societal effects of digitalisation in Greenland.
- **Methodological contribution:** Working with marginalised, post-colonial communities in sensitive and critically informed ways requires a strong focus on and involvement with ethical and reflexive researcher positionality throughout the project. Initial questions and the interviews guide were informed by the engagement with critical feminist security literatures and the work of indigenous scholars, e.g. [29], who highlight the value of decolonising research approaches. However, they also underline certain practical limitations of these approaches, particularly with regard to overcoming structural inequalities and power imbalances. The methodology chapter of the present work explains how participant recruitment and data collection was guided by these principles, including shared learning and the need to critically assess researcher positionality [30]. The analysis of the data further draws on these methodological insights by employing a grounded-theory-informed approach, allowing relevant themes to emerge from the collected data.

1.1 Structure of the Present Work

This thesis consists of eight separate chapters, each containing a number of sections and subsections. The chapter following this Introduction investigates the historical origin of the postcolonial narratives that frame Greenland through notions of *remoteness* and *isolation*. It does this by critically assessing how the flow of information, goods and people in and out of Greenland

has been shaped, controlled and conceptualised in the past. It also lays out how Greenland’s digitalisation ties in with the process of gradual political self-determination by exploring how different media or communication channels have evolved into the central bloodlines of modern Greenlandic society, not only shaping flows of information but also affecting identity-formation processes within Greenland and beyond.

Chapter Three introduces a number of theoretical concepts that will be employed in the analysis and discussion of the acquired data. The literature discussed underlines the inter-disciplinarity of the present work, building on insights originating from a number of different academic disciplines, ranging from HCI to various fields within the social sciences; focusing notably on feminist critical security theories that allow for an intersectional analysis of the processes in question. The research and theories discussed in this chapter will put the notions of remoteness and isolation in juxtaposition with concepts that have emerged at the heart of Greenland’s digital reformation, including digital emancipation and data sovereignty. The ways in which such fundamental antagonisms can affect and shape local perceptions of security, inclusion and self-determination are consequently examined by reviewing different critical human security theories, including the positive/negative security framework (e.g. [27]), ontological security (e.g. [31]) and collective as well as feminist security studies (e.g. [6, 32]).

The subsequent Methodology Chapter describes the research design and illustrates how questions of Responsible Research and Innovation helped the methodological outline to take shape over the course of this research journey. The chapter hence elaborates on the research principles as well as the ontological and epistemology assumptions that underlie this work, aiming to create a framework of acknowledgement for indigenous theories of knowledge and existence. Against this backdrop, a combination of methods was chosen which served the creation of a trusting environment during fieldwork, allowing for the co-production of knowledge and mutual learning [30]. This chapter further describes personal as well as methodological challenges and limitations of the project.

The presentation, analysis and discussion of the research findings is divided into three distinct chapters. Each chapter focuses on a different group of stakeholders: (1) the GoG and other government-related entities, (2) the Greenlandic population, (3) the Greenlandic diaspora in Denmark as well as entities involved in digital branding efforts. Each of these three chapters presents and analyses the corresponding set of findings before discussing them within the relevant theoretical framework. The three parts are thereby interrelated, building on each others’ conclusions and thus forming an ‘argumentative cycle’:

- (1) The first of the three analysis chapters examines GoG's two recent digitalisation policies and puts them into relation with statements from GoG officials acquired during fieldwork. This chapter thereby aims to interpret and uncover the government's ambitions to address some of the country's most pressing issues through improved digital connectivity, branding itself as a forerunner in the digitalisation of the Arctic. Even though portrayed as a holistic policy with comprehensive implications for social reform, this chapter shows that Greenland's digitalisation efforts also speak to a politicised agenda of securing territories, people and minds through digital means. The concept of *digital citizenship* will be at the core of the discussion of the related securitisation practices.
- (2) Contrary to the precedent policy-centred chapter, the following two chapters employ a clear ground-up approach, focusing on the insights and experiences that emerged during the fieldwork. Along the lines of four *digital divides*, including socio-economic aspects as well as language, location and gender, this chapter identifies and discusses the main challenges, concerns but also opportunities that participants have identified in their everyday usage of digital technologies in Greenland. These findings are subsequently discussed by dint of critical security theories to reveal a number of practices that foster empowerment, inclusion but also aspects of exclusion in the context of modern Greenlandic identity formation.
- (3) The third analysis chapter concentrates on testimonies from members of the Greenlandic diaspora in Denmark and Greenlandic entities that work with cultural heritage preservation and nation branding. Analysing how digital technologies have impacted upon their information sharing practices sheds light on the representation of everyday Greenlandic digital and visual cultures.

Lastly, in Chapter Eight, the Conclusion summarises the main findings of this thesis linking them back once more to the framework provided by the previously presented literature, emphasising this work's scholarly contributions while proposing pathways for future research.

Chapter 2

Remoteness, Representation and Media Cultures in Greenland

2.1 Contemporary Greenlandic-Danish Relations – From Post-Colonial to Digital Futures

Greenland is looking back on a long history of Western colonialism. From the first settlements of the Norse Vikings in the 9th century [33], over the colonisation by Denmark-Norway from 1721 onward, to the administration by the United States of America (USA) during the Second World War. Even though once famously proclaimed a “zone of peace” by Gorbachev in 1987 [34, p.4], the Arctic, Greenland and its native populations have repeatedly assumed the role of a political pawn in the hands of Western powers, often for the sake of potential economic and geo-strategic advantages. The chapter foregrounds how the associated, predominantly Euro-centric narratives have dominated academic and fictional engagements with the subject area. Framing and negotiating Greenland predominantly as a remote *ground-zero* for Danish, European and international exploration, extraction and exploitation endeavours thereby appears to have evolved at the expense of local voices and interests.

This chapter further argues that communication practices, technologies and infrastructures – or the lack thereof – have historically played a central role in the structural marginalisation of locally shaped representations of everyday life in Greenland. Access control and the targeted use of various communication tools have hence both served the dissemination of colonialist

imaginations in the Western world as well as the subversion of local counter-narratives. In the case of Greenland, this process is likely to have been additionally reinforced by the country’s highly dispersed population. Living spread out over a vast area with little interlinking infrastructure has not only hindered the physical mobility of the local population, but also the flow of goods, information and ideas within and beyond Greenland. It can thus be argued that this communicative and geographical isolation might have further undermined individual Greenlanders’ ability to perform, realise and benefit from their citizenship and self-determination due to missing opportunities for proactive involvement in the formulation and expression of local interests, rights and identities.

In order to better understand the effects of digital technologies’ advancement on Greenlanders’ ability to perform their fundamental civic rights, it is imperative to first lay out the historical backdrop which established the current infrastructures, practices as well as power imbalances that underlie and shape Greenland’s modern communication networks and information flows. In this context, also the representations in popular culture and academic literature that resulted from the imbalance are examined. This chapter thus mainly focuses on historic, political and structural elements that have contributed to Greenland’s isolation from global information networks and to Greenland’s imagined *remoteness* as illustrated in most foreign representations. The chapter finally links these developments to the state of digitalisation in Greenland today as well as to the role of pre- and post-digital media cultures.

2.2 The Role of Remoteness and Structural Isolation in Past and Present Greenland

Before exploring the policies and practices that have contributed to the control and marginalisation of Greenland’s information flows, it is important to understand how concepts such as *remoteness* and *isolation* have been framed, understood and analysed in the wider HCI and Greenland-specific literature. In this context, it is important to note that these concepts have been used to refer to both questions of limited accessibility and mobility as well as to more overarching issues of social marginalisation. Hence, in a socio-political context, remoteness has often been defined in terms of “geography and access to mainstream health, education, energy supply, and other public and private services” [35, p.339]. Lacking the ability to cover such basic needs has consequentially also been associated with *social isolation* and diminished social

capital more generally, leaving the affected population groups in a marginalised and vulnerable position [36]. Past HCI scholarship has engaged with remoteness-related issues primarily through studies and discussions along the lines of the *digital divide* which are addressed in the following chapter. However, a growing body of HCI and digital civics research in particular has also examined the specific socio-technical aspects of living in perceived or actual seclusion from access to physical, social or digital mobility and other related privileges. The concept of isolation has thereby generally been equated with involuntary social exclusion [37], stemming from “issues of accessibility, functionality and control” [38, p.323], generally leading to a low quantity and quality of social contacts [39, 40]. The phenomenon has thus, also within the HCI literature, mainly been ascribed to marginalised groups, who are more prone to be negatively affected by power imbalances and to encounter structural hurdles to social interaction and integration in their daily lives. The literature has addressed a number of examples, including older people [40], people separated from family overseas [41], people living with disability [42] or long-term illness [43], as well as people in remote geographical locations [44] (as in [45, pp.2-3]).

HCI has also explored social isolation more broadly. Recent studies have shown how social isolation can be found among individuals who are ‘transitioning’: from healthy to ill [43], from citizen to refugee [24], from employment to unemployment or from one job to another [46]. These transitions can have strong effects on the individual’s social networks and societal status and may therefore directly impact upon an individual’s sense of social isolation. Long et al. [46] studied the link between social isolation and the transitioning into a new professional role by looking at informal care workers. The study recommended “digitally mediated support to focus on transitioning, talking, belonging and escaping” as a way to mitigate the negative effects on feelings of marginalisation and social isolation [46, p.1339]. While generally providing valuable insights into the everyday challenges that digital and social remoteness might entail for different groups as well as the ways in which digital technology might reinforce or weaken these challenges, the literature pays relatively little attention to the historical and structural components which have led to the described loss of agency and increased vulnerability in the first place. A more contextualised analysis might thus contribute to a better understanding of the specific security concerns that result from social isolation and remoteness (as in [45, p.3]).

As alluded to in the previous chapter, Greenland’s societal, ecological and political realities have been transitioning at a high pace, undermining, challenging and transforming established everyday life practices and self-images. Despite the distinct resilience of the Arctic inhabitants to such profound changes [47, 48], this section argues that historic components have played

a fundamental role in Greenland’s political and social but also technological marginalisation. Centuries of colonial rule and Scandinavian influences will hence be interrogated as determining factors in shaping the dynamics of modern Greenlandic information flows.¹ Thus, as indicated above, not only limited physical access itself but also contextual notions of control and power need to be taken into consideration when examining digital technologies’ influence on contemporary Greenlanders’ ability to perform and benefit from their citizenship. In this context, Greenland’s colonial background is explored in more detail in the subsequent sections, focusing particularly on the ways in which colonial policies and ideologies have laid the foundation for structural isolation and thus inequalities regarding the flow of information, goods and people – and hence also affecting the representation of Greenland and its people abroad. The first section explores how colonial policies isolated Greenland for the purpose of economic exploitation. The second section looks at more recent development attempts which aimed at addressing some of the socio-economic aspects of Greenland’s geographical isolation and its artificially reinforced segregation.

2.2.1 Greenland’s Colonisation – Positive Isolationism, Economic Exploitation and Access Control

Today an autonomous constituent country within the Kingdom of Denmark, Greenland’s more recent history of colonialism commenced in 1721 with the arrival of the Danish-Norwegian missionary Hans Egede [49, p.491].² Danish colonialism was initially marked by attempts to spread Lutheran Christianity amongst the Greenlandic population. While traditional Inuit belief systems consequently faded from the public sphere, Evangelical Lutheranism became the

¹The term “information flows” refers to the transmission and exchange of processed data that is presented in a particular context to convey and communicate specific knowledge. The term “data flows”, by contrast, refers to ‘raw’ sets of unprocessed data points.

²However, the very first European influence can be dated back to the Norse Vikings who settled in Greenland around the year 989, where they first encountered the native Inuit population that had migrated from the Northern Americas and Siberia to the neighbouring Arctic island [50, p.8]. The first Paleo-Eskimo-migrations into Greenland had occurred about 3500 years ahead of the Vikings’ arrival and were followed by various further migratory streams [51, p.123]. In 1261, the Norwegian Kingdom first taxed the Norse settlements. The establishment of a Danish-Norwegian dual monarchy under Olaf II of Denmark and his mother Margrete I in 1380 marked the first direct political involvement of the Danish Crown in Greenlandic affairs [52, 53]. However, the Norse population eventually died out in the 14th century and it was thus not until the arrival of the missionary Egede in 1721 that Greenland re-appeared in the Danish-Norwegian public awareness [50, 54, p.8]. Under the Treaty of Kiel, signed in the context of the Napoleonic Wars in 1814, Frederick VI of Denmark ceded Norway to the Swedish Crown but succeeded in keeping Iceland, the Faroe Islands and Greenland. This ‘achievement’ for the Danish Kingdom has been ascribed to the Danish diplomat Edmund Bourke who managed to “exploit the exhaustion and historical ignorance of the Swedish negotiator and the Swedish crown prince’s impatience to resume the pursuit of Napoleon” [55, p.267]. Despite Norwegian objections, Greenland remained hereafter a Danish colony until World War II [50, 56].

predominant religious affiliation in Greenland to which today, statistically, about 95.5 % of the population adhere [57]. Despite this assimilatory approach towards the Greenlandic indigenous population, past research has argued that the main characteristic of Danish colonialism in Greenland was economic exploitation rather than settler colonialism [50, p.11]. As such, the focus of the Danish administration appeared to be, first and foremost, on the colony's economic output and the attempt to keep interactions with the local population to a minimum. A number of isolationistic policies were consequently introduced with the aim of consolidating Danish rule and economic supremacy in the colony. Denmark accordingly imposed a state monopoly on all Greenlandic imports and exports, with the main export-revenue stemming from whaling, fishing and hunting activities [50]. Another important factor in this regard was the prospect of rare minerals and other natural resources in the Greenlandic soil. The cryolite mine of Ivittuut, established around 1860, has been named as the economically most significant endeavour in this context and as a decisive factor in reinforcing Danish interest in the colony [58].



Figure 2.1: Part of Nuuk's *Colonial Harbour* overlooked by a statue of missionary Hans Egede from 1921. Egede led the first extensive Christianisation efforts in Greenland and is known to be the founder of the Greenlandic capital [59]. The Colonial Harbour is Nuuk's *Old Town* and consists of wooden, Scandinavian-style houses that date back to the time of Danish colonisation (author's own image, May 2018).

Aside from the Danish economic interests, historians interpreted this form of state monopoly as a measure to preserve local hunting grounds as well as to protect the native population from the risk of getting exploited through, e.g. low-wage employment in a quickly up-scaling international economy [53, 60, 61]. To protect the island's resources and inhabitants not only from the economic interests of Danish companies but also from other seafaring nations, Denmark augmented the segregation of the island by restricting physical access through state-issued approach-permissions for any vessels [50]. Nuttall noted in this context the Danish colonial administration's proclaimed goal that "any trade had to benefit the indigenous population" [61, p.331]. Despite these efforts to limit negative repercussions for the local population by shielding it from excessive external influences, past research has emphasised that Greenland predominantly functioned as a one-way source of economic gain, with a flow of profit from the periphery (Greenland) to the core (Denmark) under monopolised Danish control [50, pp.7,11]. The Danish colonial policies with their segregating attempts have therefore been described as a "paternal rule" employing "positive isolationism" to push primarily Danish economic interests at the expense of the local population's rights and interests [p.331 61, 62, p.21]. Thus, while limiting potentially even more harmful external influences, reinforcing Greenland's isolated status equally entailed "[dependency on] Danish tutelage" [62, p.21] and thus the subversion of Greenlandic agency.

However, the isolationist policies focused not only on protecting Danish economic interests. The "instructions" for the conduct and behaviour of European traders in Greenland from 1782 – known as the *Instrux* – have been referred to as a further example in this context [63, p.291]. These rules were concerned, amongst other things, with the various potential "negative" repercussions of European and Greenlandic social interactions. According to the *Instrux*, such interactions might lead to, *inter alia* "unproductivity" [63]. The *Instrux* further elaborated extensively on illegitimate intimate relationships, especially between European men and Greenlandic women, prohibiting mixed Greenlandic-Danish marriages and the employment of young Greenlandic women as housekeepers [63, p.292]. Nuttall argues that the moral rationalisation for extending the segregating approach to the social realm was derived from the Enlightenment movement and Jean-Jacques Rousseau's concept of the *Noble Savage* [61, p.331]. Greenlanders were hence perceived and portrayed as "free children of nature" whose way of life should stay unaffected by European customs (as read in [50, p.27]).

Such colonial policies clearly underline the imperialist "two pronged macro-micro strategy of exploitation and containment" [64] which undermined the autonomy and identities of the

indigenous Greenlandic population by imposing Western regulations, norms and imaginations while artificially maintaining a one-way control of the flow of people, goods and information. The Danish access control policies might further indicate the struggle and concerns of the Danish Crown to uphold its sovereignty over the vast territory of Greenland. Today, the famous dog-sledge patrol *Sirius*, a military unit of 12 people, two of which patrol along the uninhabited coastline of Greenland on a dog sledge for the coldest eight months of the year, maintains some of this function. Hence, according to the Danish Army’s website, *Sirius* serves to “enforce Denmark’s sovereignty in Northeast Greenland” [65].³ Further legacies and lasting repercussions of past exploitation, control and segregation measures are explored in the following sections.



Figure 2.2: This photo depicts part of the Nuussuaq district seen from a distance. A Danish ocean patrol vessel lies at anchor in the bay (author’s own image, May 2018).

2.2.2 The Legacies of Forced Urbanisation and Modernisation

Isolationist policies and Enlightenment philosophies have faded from the spotlight in the more recent history of Greenlandic-Danish relations. Rather than shielding the local population from

³Defence remains a political competence under the control of the Danish government. The Arctic Command or Joint Arctic Command, which *Sirius* forms part of, is the name of the Danish military representation in Greenland and the Faroe Islands which monitors the two countries and their surrounding waters. The unit is further involved in “search and rescue missions, maritime pollution prevention, hydro-graphic surveys, and miscellaneous support to the civilian society” [66]. It can be argued that the nature of this mobile unit speaks in certain respects to the romanticised imagery of past Arctic expeditions, heavy in symbolism and heroism, with only limited implications on the actual everyday security of the island’s inhabitants.

foreign influences and lifestyles, the 1950s and 1960s in Greenland were marked by accelerated modernisation and integration efforts under the so-called G50- and G60 policies which aimed to address the shortfall in accessible basic services in the country’s remote villages [67]. However, as outlined below, also this episode in the history of Greenlandic-Danish relations caused hardship for the local population. Aiming to agglomerate the Greenlandic population in bigger settlements was seen as a necessary step to be able to provide greater parts of the Greenlandic population with basic services and hence support the socio-economic development of the Greenlandic society. The fast spread and challenge to contain and treat tuberculosis in Greenland’s remote villages during the 1950s can be named as one situation that encouraged Danish and Greenlandic authorities to address the existing gaps in healthcare provision across the different parts of the country, leading to the above-mentioned modernisation policies [67]. As outlined in this section, these past attempts to tackle physical immobility and remoteness may have entailed lasting repercussions which are also reflected in Greenland’s modern digitalisation strategies.

For the duration of the Second World War, Greenland was administered by the USA to avert German claims following Denmark’s occupation by Nazi Germany [68]; a decision which underlined the geopolitical and economic weight of the Greenlandic landmass in the considerations of the world’s leading political powers already at the time.⁴ After the war, the status quo of Greenlandic-Danish relations was re-established as administrative powers were transferred back to Copenhagen. However, the integration of the self-determination principle into the foundations of the newly founded United Nations and the consequential wave of decolonisation also exerted an impact on Greenland’s legal standing within the Kingdom of Denmark. Greenland accordingly turned into a Danish county in 1953, discarding its colonial status while also marking an important step towards political independence [69].⁵

After the agreement between Danish and American officials that the USA would be in charge of the administration of Greenland during the Second World War came to an end, a number of ‘modernisation’ efforts were decided upon by both Danish officials as well as a small Greenlandic elite, entailing far-reaching development attempts [71]. These measures have not only been interpreted in light of the aim to modernise Greenlandic society but also with the

⁴At the beginning of the war, Greenland had the only operational commercial cryolite mine. Cryolite is a mineral used for the extraction of aluminium from bauxite ore [68]. The Greenlandic cryolite mine has hence been named as one considerable factor in the decision to devolve Denmark’s rule over Greenland for the duration of the war [68]. Until the present day, Greenland’s natural resources remain a magnet for international economic and security-related interests and concerns [60].

⁵Today Greenland is, alongside the Faroe Islands, one of two autonomous constituent countries that remain part of the Kingdom of Denmark, whereas Iceland declared full independence in 1944 [70]. The Faroe Islands had gained self-governance ahead of Greenland in 1948 but had also never been colonised in the same way as Greenland and thus maintain a different relationship with Denmark.

goal of the local population's further urbanisation and "danification". The implementation of these policies coincided with the secession of Iceland from the Danish Kingdom in 1944 and thus with major changes in regard to the Danish sphere of influence in the Arctic and Northern Atlantic. Furthermore, there was growing international pressure on Denmark from part of, *inter alia*, the United Nations to further support the self-determination of former colonies [72, p.442]. However, the subsequently introduced modernisation measures evolved to be inherently *Janus-faced*: while allegedly driving economic and societal reform in order to strengthen and support Greenlandic autonomy, the implemented actions bore first and foremost the hallmarks of the Scandinavian welfare state. Pasting Danish social norms and standards one-to-one onto the local structures with little or no consideration for the specific needs and concerns of the Greenlandic population in the design and implementation of these measures thus rather led to undermine local autonomy and development.

The measures in question encompassed and affected various aspects of everyday life in Greenland. An overarching state-construct entered people's everyday life for the first time during this period as the Danish social welfare system was imposed on the island's indigenous population [73]. The newly introduced social policies transformed social practices and perceptions in a way that demanded a re-conceptualisation of the 'community' along the Western idea of the 'individual'. Beck and Beck-Gernsheim [74] refer to this phenomenon as "institutionalised individualisation" as citizenship rights and responsibilities in the modern state mainly target the individual. This process can be seen in contrast to the strong communal bonds which, hitherto, characterised the social life in Greenland. Leonard [73, p.138] describes these as a "network of belonging", which he defines as "branches of an extended family (typically) that constantly reassert their kin links with one another through various modalities and practices of social belonging". With this definition Leonard stresses the rituality of the decisive identity-establishing practices within the group and the central role of the community as provider of security.

Furthermore, during the 1950s, the Danish language gained in importance in public life and education after it had been introduced as a school subject in 1925 [75, p.237]. The declared goal was "to let Greenland become a more integrated and equal part of Denmark and to let the children obtain near-Native or Native competence in Danish" [75]. In line with these objectives, in 1951, a group of 22 Greenlandic children was taken from their families and sent to foster-families in Denmark. Danish socialisation was supposed to turn the children into 'ideal' new Greenlandic citizens, according to Danish societal standards. After completing this 'educational stay', the young Greenlanders were meant to become the vanguard of the Greenlandic society.

However, the result of this social experiment was a group of traumatised young human beings who, upon return, were no longer able to communicate in the language of their biological families and eventually became alienated community members, some of whom grew up in an orphanage in Nuuk [18]. It can be argued that the social and psychological implications for the affected individuals were even further aggravated in the context of the fundamental importance of the local networks of belonging in the Greenlandic society. In this context, Leonard describes the significance of social separation in the Greenlandic society by highlighting that “the distress of detachment from place and family, of severing the network of belonging are sufficiently strong that exile in itself is considered an onerous punishment” [73, p.141].

These instances of forced assimilation have been addressed with regard to their encompassing negative impacts on the Greenlandic society as a whole and its modern identity formation, including on the basis of what Alexander [17] describes as *cultural trauma*: “Cultural trauma occurs when members of a collectivity feel they have been subjected to a horrendous event that leaves indelible marks upon their group consciousness, marking their memories forever and changing their future identity in fundamental and irrevocable ways” [17, p.1]. The case of this social experiment hence remains a dominant topic in Greenland’s public debate to date and a symbol of the negative impact of Danish influences in Greenland [76]. This perception has further been reinforced by the absence of an apology from the Danish government which eventually came, 69 years after the children had been taken to Denmark, in 2020 [77, 78].

The modernisation policies also involved a number of infrastructural reforms aimed to support Greenland’s urbanisation as life in the coastal settlements was deemed “unprofitable, unhealthy and old-fashioned” [79]. Following the requests of a small Greenlandic elite and “Danish concerns over sovereignty, security policy, and Greenland’s socio-economic development”, large concrete building blocks were constructed in the mid-1960s in the capital, Nuuk, using techniques of rapid urban development which were popular in that era across Europe [80, p.49]. Greenlanders who were forced to leave their settlements to live in these building blocks reportedly struggled with the outline of the apartments, designed after European needs: the closets were too small to fit fishing equipment, doors too narrow to pass through with winter-clothing and the bath-tubs were not fitted for the processing of seal carcasses, leading to extensive drainage issues [79, 80]. In reference to Gartner’s [81] categorisation of development infrastructure projects, this measure can be described as an extreme case of interventionism, where a concept that had proven to be successful at home in Denmark was implemented without further considerations nor consultations in a different cultural and socio-economic setting. This

case further displays the graveness of the unintended consequences that maladjusted and uninformed design choices can entail; an issue which has also been addressed by ICT4D and HCI4D scholarship in line with a growing focus on the importance of participatory co-design practices [82].



Figure 2.3: Apartment block number five in central Nuuk. It is one of the ten remaining housing blocks that were built in context of the modernisation efforts in the 1950s-70s. The artwork on the building's outer wall is based on a photograph of a hunter from Tasiilaq and was created by Australian artist Guido van Halten in 2014 (author's own image, May 2018).

Part of these unintended consequences have been alluded to in other research projects. For instance, past studies have linked the fast changing Greenlandic living conditions of the 1950s, 1960s and 1970s to increasing numbers of suicides, alcoholism and violence [83, p.208]. Even though no generalisable causal links could be identified, studies point to a “general picture of dysfunctional social relationships and alienation” among the respective cohorts in the areas which had experienced elevated urbanisation or modernisation efforts [83, p.214]. Today, suicide numbers remain comparably high in Greenland, however, with higher suicide numbers in rural areas compared to the bigger settlements [84]. Social issues, including alcoholism, suicide, domestic violence and sexual abuse are often listed as the most pressing societal and public health challenges facing modern Greenland, with domestic abuse affecting a significant number

of Greenlandic women and children [85]. Moreover, suicide is a leading cause of death among young men aged 15–29 in Greenland [86]. In recent years, a growing number of Information and Communication Technology (ICT)-related initiatives have been set up to try and tackle these challenges, including telephone helplines and online information sites, e.g. [87] (as in [5, p.2]). Apart from the overall logistical challenges that Greenland’s health care sector is facing, the trauma of past urbanisation policies might have further encouraged the ambition to provide and advocate social services and infrastructures increasingly through digital means. Bearing the potential to enable a more harmonious co-existence of geographical isolation and social integration, digitalisation might speak to the specific and historically-formed needs of the Greenlandic people.

While the modernisation measures of the 1950s and 1960s were aimed at increased inclusiveness within the set boundaries of the Danish system, evidence suggests that they mainly entailed social and socio-economic marginalisation. However, according to Langgård, this era of forced *danification* also marked the beginning of “the fight for the decolonisation of the mind” and the rising interest to preserve, protect and promote local language, culture and interests more generally [75, p.238]. However, the complex changes that occurred in the period after the Second World War appear to have received limited overall attention in both Greenland and Denmark in the process of coming to terms with the past, playing only a marginal role in the respective school curricula or the representation of modern Greenland. It can be argued that this indicates the lasting and continuous effects of asymmetric or selective information flows between Greenland and Denmark and other countries. Yet, as has been established in other post-colonial settings, coming to terms with all chapters of a society’s past is an integral and fundamental part of reconciliation but also collective healing processes [88]. In order to understand these dynamics in more detail, the next section looks at the ways in which these imbalances are reflected in past and present representations of Greenland. Following this, Greenlandic media ecologies will be looked at to gain further insights in the communicative infrastructures which might foster decolonising cultures in modern Greenland.

2.3 Inequality and Marginalisation through Misrepresentation

These power asymmetries and Greenland's artificially maintained isolation also determined how life and trade in the colony would be framed and perceived at home in Europe. Representations were predominantly geared to reassuring, romanticised imaginations of the *colonised Other* [89]. One can argue that such consciously distorted and biased portrayals further subverted the standing and agency of Greenlanders in the public perception, especially beyond the Arctic. This section therefore takes a summarising look at past and present examples of such misrepresentations to illustrate how they feed into a continuous stigmatisation of Greenlanders [90, 91]. The consequential experiences of exclusion and marginalisation appear to fuel Greenlandic identity debates to the present day. This section further highlights the centrality of the structurally-reinforced one-sidedness of information flows and the concept of remoteness in forming the discourses and representations in question.

Greenland's representation in art and popular culture has been studied by a range of scholars, focusing on different media and fora that have played a role in the shaping of today's predominant imaginations of Greenland and its people. Several studies have thereby focused particularly on representations of Greenland in movies and documentaries [92, 93].⁶ The identified representational patterns have often been analysed or put in relation with a concept called "Arctic Orientalism". The concept was coined by Fienup-Riordan in 1995, who described modern representations of Inuit culture to be dominated by: "[...] the origin of society in the 'pure primitive': peaceful, happy, childlike, noble, independent, and free." ([91] as quoted in [93, p.140]). Accordingly, Jensen [93] displayed through his cinematic analysis of three movies set in Greenland the continuation of a Danish narrative that predominantly draws on this concept of *Arctic Orientalism* and thus supports perceptions of Greenland as predominantly *remote* and *foreign* [91]. Jensen continues his analysis by focusing on the portrayal of Greenlanders as both "silenced and silent" individuals, implicitly portrayed as "belonging to a lower order" in the three movies in question [93, p.149].⁷ He argues that the movies' narrative ultimately serves a justification of Denmark's involvement in Greenland, deterring the Danish audience "from having to address their historical and contemporary complicity with colonialism" [93, pp.151-152]. Studies like the one described here expose the lack of Greenlandic counter-narratives in

⁶ One well-known example in the art world is the work of Danish painter Emanuel A. Petersen (1894-1948) which shall be discussed in more detail in Chapter Seven.

⁷The author discussed the movies *Qivitoq* (1956), *Heart of Light* (1998) and *The Experiment* (2010) [93].

a majority of foreign-produced artistic engagements with Greenland that could challenge the displayed subverting imaginations. Recent years have witnessed a growing Greenlandic film industry, with the first Greenlandic feature film being released in 2009 [94].

Forms of *Arctic Orientalism* have also been documented in international political practices [95, 96] where it has primarily been interpreted to function as a mirror of Western national narratives and interests, subverting the Greenlandic and indigenous perspective and thereby reinforcing its marginalised status. Lindroth and Sinevaara-Niskanen [95] address this issue of continuous colonialism, focusing on bodies of international law and politics. They describe how political exclusion continues to the present day through seemingly benevolent and inclusive measures that diminish Indigenous peoples' influence by excluding them into solely consultative roles. In these positions the Indigenous peoples' main purpose appears to "fulfil a certain fantasy of eco-indigenism shaped and developed by Western culture" in an "empathetic and caring wave of colonialism" [95].

Hickling-Hudson et al. describe how such practices, ideas and ideologies can also be found in national educational systems where the relevant curricular content would support rather than question neo-colonial narratives, leading to scenarios in the classroom where "subjugated standpoints, suppressed cultural histories and identities are recovered" [97, p.2]. The subtle and even unconscious process of ingraining historically-formed societal misconceptions and biases within public structures including school curricula has generally been identified as a common breeding ground for discriminatory mindsets and consequentially enhancing feelings of misrecognition and social isolation among the affected minorities [98]. In the case of the respective Danish curricula, there has been repeated criticism regarding the amount and quality of the Greenland-related material that is in use today, alluding to the Greenlandic society as being backward and primitive. Out-dated and stereotyped educational contents that dominate the limited teaching units that cover Greenland or the Danish Realm more broadly have been linked to insufficient knowledge and the consequential prevalence of discriminatory prejudices among the Danish people [99].

Remoteness and backwardness as an attribute of underdevelopment and *otherness* is thus a central theme that can be found in representations of Greenland and Greenlanders across various public spheres and media, including film, politics and education. Being a concept opposed to modern trends such as urbanisation and hyperconnectivity, the central use of remoteness and backwardness in those representations and practices appears to contribute to the subversion of Greenlandic narratives and perspectives, both on a national and international level. Against

the historical backdrop of continuous structural marginalisation as well as flawed conceptions of reform and development projects, this work aims to explore how, and if, digitalisation can help to challenge and disrupt such misrepresentations. The following chapters thus, in light of these findings, explore to what extent a growing digitalisation of the Greenlandic public sphere might affect the formation of a more inclusive and diverse representation of Greenlandic everyday life. They further discuss the extent to which Greenlanders feel involved in shaping their country's (digital) future or whether Greenland's ambitious digitalisation policies merely repeat past exclusive practices in which the proclaimed recipients of developmental support only assume an ancillary role. The following section thus takes a closer look at the role of Greenland's pre-digital media landscape in the process of identity formation and the democratisation of information flows before discussing how these media ecologies are likely to develop under the influence of increased digitalisation.

2.4 Reinforcing Self-Determination – The Role of Greenland's Media Ecology

This section examines the role of Greenland's media landscape in providing the country's population with platforms for cross-regional knowledge transferal and bottom-up representative practices. In this context it discusses, to what extent Greenland's digitalisation process might disrupt or transform Greenland's media ecologies while potentially also offering a way to provide all of the population with access to (certain) basic services through telemedicine or digital classrooms without imposing any urbanisation policies on people in remote settlements. The following sections thus examine how digitally enabled (media) services might be used to address existing challenges in a more inclusive and contextualised manner.

The HCI literature has looked at ways in which different population groups can benefit from the use of digital technologies, especially in the face of low levels of physical mobility, as an untapped resource to restore freedom, independence and unhindered communication [40, 43, 46]. Yet, associated studies further reveal how individual preferences can impact upon usage patterns. Karimi and Neustaedter's [100] study, which looked at communication practices among socially isolated elderly people in Western Canada, highlighted usage patterns which formed along the lines of individual capability and willingness to use digital technologies as well as interest in social interaction generally – thus scrutinising the idea of connectivity as the ideal

state as certain individuals would prefer to stay disconnected. Drolet et al. [101] accordingly illustrated how technologies can assist people in withdrawing themselves from everyday pressures, supporting introspection (as in [45, p.3]). Hence, while emphasising some of the advantages that digitalisation can bring to marginalised communities, these studies also point to the individual preferences which need to be taken into consideration when designing the respective services and digitalisation strategies. Moutafidou and Bratitsis [37] further explored how modern societal developments, such as globalisation, have created a wider number of vulnerable population groups with limited access to equal rights and opportunities. This form of discrimination, and social exclusion, can occur on various grounds, ranging from gender, ethnicity and age to socio-economic status. Focusing mostly on the loss of agency and less on the material aspects of marginalisation, Moutafidou and Bratitsis suggest approaching the issue through digital storytelling; creating digitally mediated personal narratives to serve as a tool to enable affected individuals to “find and strengthen their voices in order to empower their social, economical and political inclusion” [37, p.224] (as in [45, p.3]).

These studies highlight primarily the transformative potential of digital technologies for population groups who face some form of marginalisation. The following sections therefore take stock of the development and status of different media and information channels in Greenland to date before discussing the emerging role of digital infrastructure and services, particularly in regard to diverse social challenges and hence the sense of self-determination of individual Greenlanders.

2.4.1 History, Presence and Future of Communication Technology in Greenland

This section examines how media cultures and communication infrastructures have evolved in Greenland over the past decades. In this context, it discusses to what extent the improvement of Greenland’s communication infrastructures might contribute to a reproduction of historically imposed inequalities or to the advancement of Greenlandic self-determination through the democratisation of information flows within and beyond Greenland. The goal of gaining further self-determination and cultural re-appropriation is looked at in conjunction with the state and history of communication infrastructures and media cultures in Greenland.

Given the extreme climate of the Arctic and the local geographical conditions discussed earlier in this chapter, physical infrastructure in the form of roads or other traffic routes are

naturally limited in Greenland. In order to move from one of the 18 towns and 60 settlements to another, possible means of transportation are restricted to waterways, air transportation or in some cases snow mobiles or dog sledges [102, p.5]. The great distances and poor infrastructures as well as the fact that the two biggest airports are military airbases located in relatively uninhabited areas of the country mean that transportation is generally expensive and potentially time consuming [102, p.5]. Consequently, the opportunities for physical encounters beyond the boundaries of one’s own settlement are relatively limited and heavily depend on the (financial) means of the individual. Accordingly, social participation, education and training or the general maintenance of (family) relationships beyond the local level can be difficult and are subject to the accessibility of the necessary information and communication infrastructures [103]. However, while playing such a central role with regard to Greenlanders’ overall social capital, also the transmission and exchange of information has been affected by the described immobilities in Greenland.

The first Greenlandic newspaper, *Atuagagdliutit* (“something to read”), was founded in 1861. Its original purpose was to promote local identity by publishing the traditionally orally-transferred Inuit tales and expertise in paper form and to inform the local population about other cultures [107, 108]. Orality has been named as a central element in knowledge creation and dissemination in various indigenous cultures [109]. In Greenland, language and storytelling has accordingly served as media to pass on traditional knowledge from generation to generation and has thereby provided for a collective understanding of the self as well as the preservation of unique knowledge systems, including Traditional Ecological Knowledge (TEK) [73, 110, 111]. However, these oral traditions have progressively given way to Western forms of knowledge transfer, such as text-centred newspapers and publications like *Atuagagdliutit*.

The first Danish newspaper, *Grønlandsposten*, followed more than 80 years after the first publication of *Atuagagdliutit*, in March 1942. The two papers merged after the Second World War, in 1952, to form the news-journal *AG* [107]. In 2010, *AG* started to work together with another Greenlandic newspaper, forming *Sermitsiaq.AG*, which is today Greenland’s biggest online and print bilingual newspaper [112, p.30]. Despite the historic importance of *Atuagagdliutit* and the central role of *Sermitsiaq.AG* in the Greenlandic media landscape today, the distribution of newspapers is and has often been affected by weather conditions, compromising the novelty value of the papers’ content. More remote areas have been affected to a greater extent than those closely located to the main air hub in Kangerlussuaq. This relates to the fact that since the shut-down of the only Greenlandic printing plant in 2012, all newspapers arrive

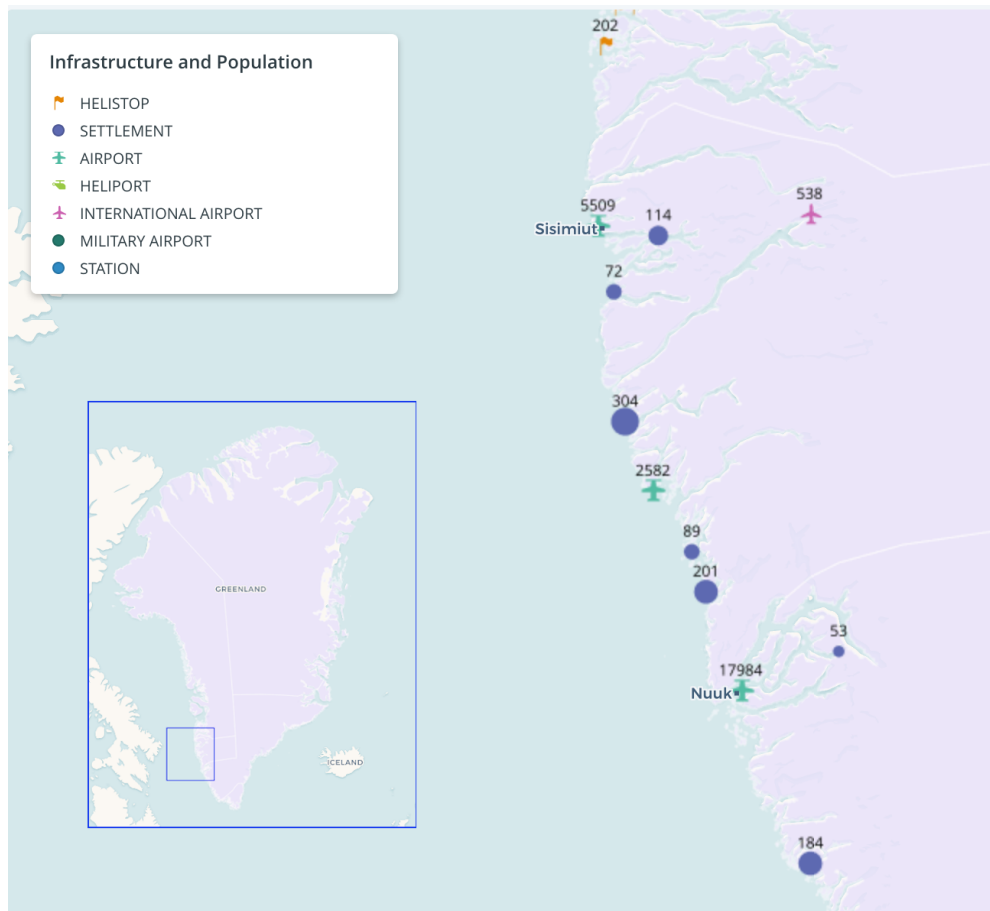


Figure 2.4: This map shows part of the Western Greenlandic coastline between Nuuk and Sisimiut. It illustrates the distribution of the Greenlandic population in relation to transport-related infrastructures. The image depicts one of the most populated areas of the country. The numbers indicate how many inhabitants live in each settlement while the colours and symbols indicate whether the settlement's main access for transportation is either an airport, manned heliport, unmanned landing field for helicopters (or *helistop*) or none of the above. The distance between Nuuk and Sisimiut is approximately 322km (author's own map, data from various sources including [104–106], created by using the software *carto*).

by plane to the country [113].

Less influenced by weather and thus transport conditions and at the same time also more akin to the described Inuit oral cultures was and is the radio in Greenland. First radio-telegraphs were set up in 1925 and the first public show was broadcasted almost two decades later, in January 1942. The main purpose of the radio was at first to contribute to the incoming flow of information on the ongoing war [108]. The news that were spread through the radio

mainly originated from Danish correspondents working for the British Broadcasting Corporation (BBC). According to the Greenlandic National Museum in Nuuk, “most Greenlanders were able to listen to the radio. [...] Often receivers were installed in meeting houses or workshops where people were free to come and listen” [108]. The local Greenlandic radio station Kalallit Nunaata Radioa – Greenland’s Public Broadcasting Service (KNR) opened 1958 in Nuuk. After having broadcasted radio shows across the country for over twenty years, KNR started television emissions in the early 1980s [108]. Most programmes produced by KNR were and are in Greenlandic. KNR is today an independent, state-owned corporation and the main provider for radio and television transmission across Greenland. However, the described communication channels make most communication and information dissemination one-way with information being transported into the various settlements but with only limited possible feedback returning to the source. Furthermore, the limited number of available radio and television channels could be seen as offering the Greenlandic people a comparatively limited selection of news sources.

2.4.2 Digital Greenland – Challenges and Benefits

Satellite networks did not only enable the reception of TV emissions across Greenland but also made the Internet accessible for the first time in 1996 [108]. However, on the 23rd of March 2009, a 4780 km long submarine cable linking Greenland with Canada and Iceland was put into operation, making the expensive and unstable Internet-connection via satellite obsolete in the Southwestern part of Greenland [114]. The Internet-cable *Greenland Connect* initially only reached from Qaqortoq on the Southwest tip of the island to Nuuk. In December 2016, it was however decided that the marine cable would be extended along the West coast, connecting five other towns: Maniitsoq, Sisimiut, Saqqarliit and Aasiaat [115] (see Figure 1.2). Sea ice and the extreme weather conditions towards the North and East of the island impede, thus far, the further extension of the cable. Bad weather and sea ice movement were furthermore named as a source of and an aggravating factor for several cable breakages and lengthy repairs which affected the digital connectivity of thousands of Greenlandic households for several months in 2019 [116]. In recent years, TELE-POST has therefore been working on extending cellular networks across the island to provide settlements within and beyond the reach of the fibre-optic cable with cheaper, faster and more stable Internet access [117].

With a GNI per capita of approximately GBP 26 748 in 2007⁸, Greenland counts by interna-

⁸This figure was derived using the World Bank’s ‘Atlas Method’ (at the exchange rate USD-GBP from February 2020).

tional standards as a high-income country [118]. Yet, overall digital connectivity in Greenland remains below the EU average (see Figure 2.5) and considerably more expensive compared to other high-income countries. Accordingly, with an monthly average price of about GBP 95, Greenland ranked 174th (out of 195 countries, with the 1st country on the list offering the cheapest Internet connectivity) in an 2019 international comparison of average broadband costs per month for private users [119].⁹

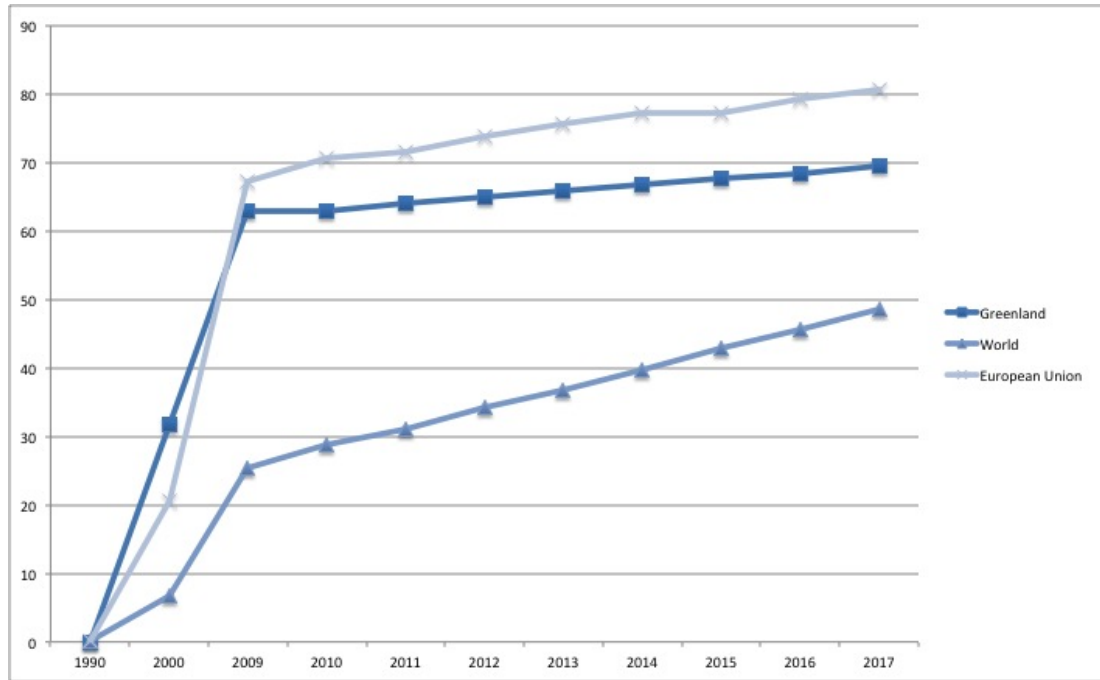


Figure 2.5: Individuals using the Internet (% of population). It becomes clear that Greenland’s digital connectivity lies clearly above the worldwide average while it is still lower than the EU average [120].

To date, the local state-owned telecommunication monopoly TELE-POST has been providing the areas beyond the reach of Greenland Connect with satellite Internet connection, leading through price-compensation to high fares for online connectivity in all of Greenland and until 2016 also to partially employed data-caps [121]. The first broadband flat-rate was first introduced in Nuuk in late 2017. However, due to the efforts to improve and extend digital infrastructures, Internet prices have fluctuated and decreased considerably over the course of

⁹The figure is based on the average price of the six different fixed-line broadband packages available in Greenland (including Dial-up, ADSL or fibre (FTTP or FTTC). At the exchange rate USD-GBP from February 2020.

the past years. TELE-POST accordingly extended the offer of flat-rate Internet packages along the Western coastline¹⁰. Given the rapid speed of technological developments and infrastructures in Greenland, one is to expect further extensive changes in the offered services in the coming years.

Given the instability and partial inaccessibility of broadband Internet connections, mobile phones play a key part in Greenlandic communication networks. For instance, in 2015 there were on average 108.2 mobile cellular subscriptions per 100 inhabitants in Greenland, compared to only 17.7 fixed broadband subscriptions [123, 124]. ICT4D literature has also documented the pervasive use of mobile devices for accessing various digital services in other remote areas as, for instance, in Northern Canada as well as in wide parts of Africa [125–127]. In these contexts, the use of mobile cellular networks usually serves as a way to circumvent the limited accessibility of fixed broadband access, increase physical or digital mobility and may also be seen as a status symbol [128]. Research on mobile phone use in remote areas has also explored its central role in maintaining and extending social networks [24, 129]. Even though a high-income country, Greenland hence faces similar access limitations and adaptation patterns as some of the low-and middle-income countries of the world. These patterns and limitations are explored in more detail in Chapter Six.

Building on the idea initially introduced by Atuagagdliutit, the Internet provides Greenland with a possibility for easier exchange of knowledge and opinions within and beyond the country’s borders, potentially granting more legitimacy to GoG by creating new platforms and channels for closer cooperation also between citizen and state such as the official citizen platform sullisivik.gl [130]. Sullisivik offers Greenland’s inhabitants access to a wide range of public services including, for instance, general electronic correspondence with public entities, application for social benefits, register of residents and so forth. Improved digital connectivity and the centralisation and digitisation of public services might thus offer Greenland’s citizens not only new ways of civic involvement and easier access to public life, but might also impact upon their overall experience of Greenlandic citizenship and identity.

¹⁰For a broadband flat-rate subscription of 30/5 Mbit in the town of Sisimiut one would pay about GBP 137 per month (At the Exchange rate DKK-GBP from November 2019) [122].

2.4.2.1 Everyday Digital Practices and Identity Formation in Indigenous Communities

While previous work extensively studied digital connectivity issues in the Northern Canadian or Australian context, only a few researchers have discussed everyday usage of digital networks in identity formation and democratic practices in Greenland. The few Greenland-specific studies found a particular popularity of Facebook as a means of communication which has also been observed in digital ethnographic work with other Inuit or indigenous communities [126, 131]. In this context, the value of image-based knowledge exchange has been highlighted, as it allows for the inclusion of indigenous orality in contemporary digital cultures [132]. Skjervedal [131], for instance, describes how image-based communication enabled her to engage with Greenlandic youth on Facebook. Møller Jørgensen [1, 16] further touched upon the increasing use of digital means as a way for political discussion and mobilisation in Greenland, also underlining the centrality of Facebook in these emerging digital practices.

Certain similarities with regard to the ways in which digital (communication) services are being used have been observed across various indigenous communities. Accordingly, several researchers have reported and analysed the particular popularity of digital technologies and their role in maintaining and forming personal and family relationships despite generally great geographical distances between the individuals in question [125, 133, 134]. In this context, several studies highlighted the particular popularity of Facebook among indigenous users as it allows for inter-generational connectedness and social support practices [129, 133]. Castleton [133, p.235] consequently described Facebook as a “node” in modern Inuit identity: “To be Inuit today includes sharing content on Facebook groups as much as hunting seal; it includes the web as a way to conserve and transmit traditional practices and culture”.

Past studies have furthermore shown that these online social practises expand beyond the borders of the local or respective family communities. Digital technologies appear to have played a central role in recent years to assert, stimulate and promote pan-indigenous identities through intra-community online communication, political engagements and the practice of individual and group self-determination. Carlson [129] argues that, *inter alia*, the shared experience of colonialism functions as a common basis for the exchange of visions and opinions among different indigenous groups, fostering a sense of community. These community-building practices have been associated with a reinforced cultural identity and, consequentially, better mental health and even higher participation and achievement rates in education, especially among young

indigenous people [135, 136].

The reinforcement of cultural identity through digital means, however, does not only affect indigenous communities and their abilities to create networks and engage in local politics. It has been suggested, that the Internet has also been a major channel used to inform others about indigenous identities and cultures [129, 135]. Self-Representation plays a central part in this respect. Arruda and Krutkowski [137], for instance, have argued that digital technologies provide indigenous communities with the possibility to “challenge misleading mainstream and state narratives”. (Social) media outlets thereby also serve the communities “to de-monopolise knowledge production and provide information in a language that local communities understand” [137, p.522]. They accordingly talk about a transition “‘back’ to Inuit again” [137, p.522]. Digital technology thus also functions as a tool to preserve and spread Inuit cultural heritage online [138]. As this process is *self-determined* by the indigenous peoples in question, it also underpins their political call for increased political recognition and standing.

2.4.2.2 Visual Sovereignty and Online Nation-Branding

Since the end of the Cold War, an extensive literature has emerged across a number of research fields, examining the non-military and non-coercive means of statecraft and international relations [139]. The notions of soft power, e.g. [140], public or cultural diplomacy, e.g. [141], or nation branding, e.g. [142] can be named as some of the most prominent examples. They all share a scholarly shift away from material or ‘hard’ manifestations of state power to the values, norms and customs that constitute a political entity. Thus, for instance, away from the material nature and implications of infrastructures and towards a focus on the information and norms that can be conveyed through them. This development has been explained in relation to an increasing global interconnectedness of economic and political interests in “an era of hyper-competition and globalisation [where] the new frontier is found and won in our mental and emotional spaces” [143, p.20]. It has further been argued that this novel hyperconnectivity has also evoked the recent surge of national identity as a central aspect of world politics both in form of nationalism and identity politics, as these concepts directly speak to individual and collective anxieties that may result from the world’s increasing complexity [142].

Political influence has thus increasingly been based on the skilful use of a diplomacy that represents the values and interests of a state or organisation in a non-threatening light towards its general environment as well as its (potential) partners. According to *soft power*, a theory coined by Josphe Nye in the late 1980s, political entities would thus be more likely to construct

their political profile around ‘soft’ issue areas such as culture, education and various forms of development aid and cooperation to attain their individual interests [144]. In comparison, *nation branding* concentrates more specifically on revealing and understanding the dynamics underlying a state’s image and impression management [145, p.3]. Nation branding has thus also been described as “the quintessential modern exemplar of soft power” [146, p.13]. With its main ambition “to stimulate exports, attract tourism, investments, and immigration, and create positive international perceptions and attitudes” [147, p.468], nation branding has not only been discussed in the context of international relations but also marketing research [145].

Using Finnish nation branding as case study, Browning finds that “states are as much concerned with upholding and enhancing a sense of self-esteem and national dignity as with preserving their territorial sovereignty from physical threats of violence” [148, p.196]. Following the concept of nation branding, national security threats lie thus not necessarily and exclusively in a lack of military and monetary means to protect state sovereignty and integrity but in a “lack of visibility” [148, p.196] as today “a country with no awareness is of no value” [149, p.18]. Imagery and media presence are thus seen to play a central role in conveying the essence of a nation’s brand, addressing existing prejudice and in assuring a state’s visibility through various (digital) communication channels. One could accordingly speak of a kind of *visual sovereignty* that has been gaining in importance and influence in this context. Digital technology has facilitated this process as it enables an easier engagement with a broader target audience. The aspect of image management also links to the role of the emotional underpinnings of nation branding. Hakala and Lemmetyinen highlight that “the power of a brand lies in the emotional relationships it develops” as these help individuals to develop a personal link to a place and thus a certain sense of loyalty [149, p.15]. Jansen further argues that “emotional appeals” not only serve to intrigue tourists and foreign investors but also “to evoke a sense of solidarity (patriotism) among domestic populations” for which it “(. . .) must have some links to history and a heroic origin story” [150, p.133].

However, nation branding research has also critically assessed how this market-driven approach may affect modern identity-building [148, p.196]. Van Ham [151] accordingly suggested that the emergence of nation branding had turned national identity into “intellectual property” [151, p.253], captured and monetised by marketing agencies. As branding campaigns generally draw on rather simplistic and one-sided imagery, it has been argued that nation branding may “reinforce the positive, reverse the negative and create the new” but might equally reinforce prejudices and stereotypes [149, p.15].

Even though a recent concept, historical studies show the different ways in which states have, for centuries, been engaging in different forms of ‘branding’ activities, advertising national values and actions through, *inter alia*, art and popular culture. Coming back to the previously mentioned conceptualisation of Greenlandic territory as ‘empty’, it accordingly becomes apparent that much of Greenland’s ‘branding’ has historically been shaped by external agents and interests. Past and present stereotypes of life in Greenland are likely to have been informed by biased or condensed visual representations, which can be traced back to the artefacts and visual representations of Arctic expeditions and Western colonists, explorers and missionaries through so-called *expedition art*.

Regarding the case of Greenlandic expedition art [152], art history scholars have discussed particularly the work of painter *Emanuel A. Petersen* and how it has had a lasting effect on Greenland’s representation in Denmark and beyond. Referring to the work of Candice Hopkins (e.g.[153], it is argued on the website of Nuuk’s Art Museum that the landscape paintings of Petersen contributed to an artistic way of “mapping of Greenland” with the purpose of “appropriating the country” [152]. The museum critically highlights how Petersen’s approximately 2,000 to 3,000 paintings and drawings exclusively depict a romanticised rendition of everyday life in Greenland with the Inuit people in the paintings merely functioning as an ‘archetype’ or point of reference for the viewer [152].

The continuous impact of these imaginations raises the question of the underlying causes that have kept such representations alive, undermining the visual sovereignty of Greenland. Phenomena such as Arctic Orientalism suggest a lasting appeal of these representations to certain groups or/and a lack, rejection or oppression of relevant counter-narratives. In this context, Chapter Seven further explores how the lack of digital connectivity might have placed Greenland at a disadvantage with regard to the formation of such ‘branded’ counter-narratives and the broader implications thereof.

2.5 Concluding Remarks

Greenland was granted its right to self-determination under international law in the context of the Self-Government Act (SGA) in 2009. However, in view of the principles that underlie the right to self-determination, including the *Principle of Equal Rights* and of *Fair Equality and Opportunity*, it can be argued that a number of structural inequalities still prevail. Accordingly, this chapter has outlined different ways in which Greenlanders’ equality in terms of access to

basic civic rights and services, equal development opportunities and hence self-determination continues to be undermined.

In line with this observation, a report from the Danish Institute for Human Rights on the treatment of Greenlanders in the Danish public domain highlighted in 2015 that 44% of the participants had experienced “stigmatisation and a biased attitude” [154, p.24], for instance through “biased and discriminatory treatment and degrading expressions in their contact with public authorities or institutions as a result of their Greenlandic background” [154, p.22]. Apart from such experiences of discrimination and marginalisation in Denmark, Greenlanders in Greenland have been subjected to infrastructural access issues which can be traced back both to the geographic remoteness of many Greenlandic settlements but also to the extractive and isolating logics of past colonial policies. This chapter further highlighted some of the challenges and inequalities that arise from the naturally occurring and man-made experiences of social isolation and remoteness among the Greenlandic people. These issue areas include, *inter alia*, the provision of basic services, such as mental health support and comprehensive educational opportunities, necessary to address Greenland’s various societal challenges. It is thus suggested that these structural imbalances pose a crucial hurdle to an inclusive democratic debate and to the even development of Greenland’s different regions.

However, this chapter also underlines how digital technologies have been debated within the HCI and ICT4D literature as a means to surmount the excluding hurdles posed by the distinct anatomy of rural and post-colonial infrastructures. Improved access to the Internet and increasing usage of digital services to cover the basic needs of people who experience geographic or social isolation has been explored, for instance, as potentially “supporting the transit of rural populations toward the knowledge society and achieve better socioeconomic standards” [155, p.146]. In the Greenlandic context, digital technology could thus play a central role in complementing existing communication channels. In Greenland, non-digital media platforms have been deemed central in shaping Greenland’s national movements for autonomy and self-determination that arose in the country during the 1950s, 1960s and 1970s [156]. Digital technology might be expanding and democratising such debates by broadening the previously limited number of news sources, but might also support the unprecedented possibility for a nation-wide multi-way communication platform. Another appreciated aspect might relate to the fact that digital solutions would render the alternative solution of advancing urbanisation superfluous. As this chapter has shown, past urbanisation attempts had imposed a collective trauma on the Greenlandic society and remain a symbol of colonialism’s adverse effects.

To avoid the duplication of past mistakes in form of imposing maladjusted and unsuited development and modernisation measures, it appears imperative to thoroughly study the potential and actual consequences that a comprehensive digitalisation of Greenlandic public life might entail; both on individual and group level. To that end, the following chapter will explore critical as well as feminist security theory frameworks. These theories shall, in the further course of the present work, serve to analyse the acquired qualitative data to identify the specific concerns and needs of the participants regarding Greenland's advancing digitalisation. The chosen theoretical frameworks will thereby, on the one hand, help to better understand GoG's digitalisation strategies. On the other hand, and essential to this work, critical security studies can assist the researcher in better understanding the nuances of identity-related security concerns on the individual and community level.

Chapter 3

The Role of Digital Technologies in Inclusion, Security and Emancipation

3.1 Introduction

Certain areas within the field of HCI, most notably digital civics, ICT4D and HCI4D, explore possibilities of human-centred computing to work towards the development of more inclusive socio-technical solutions [157, 158]. Digital civics expands on this notion by focusing particularly on participatory practices within the public sector. Based on Boyte’s “Everyday Politics” [159], Olivier and Wright [157, p.62] argue that digital civics addresses “a new configuration of government and citizenry (...) in which political thinking and action can be co-produced and co-owned through dialogue across differences in experience, values, and knowledge” and hence moves from a transactional to a relational focus [157]. Drawing on insights from both computer and social science, HCI and the sub-field of digital civics are inter-disciplinary in nature.

Pursuing its goal to gain further independence from Denmark, recent policies have indicated that Greenland will have to rely on remote solutions to maintain an inclusive and accessible public sector across the country [3]. As in other rural or hard-to-reach areas, being able to provide the scattered population with equal access to basic services and other central aspects of democratic citizenship and welfare heavily depends on the further development of suitable

socio-technical and digitally mediated solutions [160]. To ensure an inclusive development of such solutions which are not evocative of past trauma described in the previous chapter, key stakeholders will need to focus on the co-production of knowledge and partnership with local communities in the process, as advocated by the digital civics literature [161]. The concept of co-production of knowledge further speaks to the chosen research approach of this thesis. Through its multidisciplinary outlook and focus on bottom-up innovation and civil society empowerment, digital civics thus offers a useful framework to explore and engage with the use of digital technology in Greenlandic communities while also re-affirming the project’s methodology and research principles that seek to employ an approach of shared learning.

HCI-literature has previously looked intensely into individual motivations for engaging in digital knowledge sharing on social media as a way to influence and create, for instance, self-efficacy, perceived relative advantage or senses of self [162–164]. This, however, has mainly been done in a European/Western context. What motivational and cultural factors work on the community-level and the role of senses of individual and collective security with regard to the formation and affirmation of (political) identity in a non-Western country or within indigenous communities has received comparably little attention [165].

This chapter thus focuses on the existing body of HCI literature which has explored the transformative and disruptive role of digital technology in remote communities. In this context, HCI-related but also unrelated literature that has addressed the impact of digital technologies on different aspects of identity formation is further examined, focusing particularly on notions of (1) emancipation, (2) inclusion as well as (3) security. In this context, concepts such as digital citizenship, indigenous data sovereignty as well as ontological security will be explored. The chapter will further cover some of the challenges that may arise in conjunction with digitalisation processes in form of *digital divides*. How the transformative and disruptive impact of digital technologies may affect identity formation processes will finally be addressed through the presentation and discussion of critical security theories, covering various aspects of human security ranging from Roe’s positive/negative security framework [27] to Hudson’s work on collective feminist securities [6, 8]. This set of security literature was chosen as it extends the notion of security beyond mere protection from abuse and harm (“negative security”) but conceptualises it also as a state of being free from fear (“positive security”) [27]. Hoogensen Gjørsv [32, p.836] defines positive security further as “something that is positively valued, or as something that is good or desired. It is a good which provides the foundation to allow us to pursue our needs and interests and enjoy a full life”. Feminist security literature equally chal-

lenges the state as the main provider of security and stresses the role and value of ground-up collective actions of security (as in [5, pp.2-3]).

3.2 New Forms of Arctic Self-Determination: Digital Emancipation?

A growing body of literature has looked at potential future pathways for Greenland as climate change and globalisation have exposed the Arctic's (political) ecosystem to fundamental changes. Melting sea ice and glaciers have not only affected local livelihoods but also attracted international political attention as, *inter alia*, new shipping routes and mining opportunities are materialising [166]. Previous research on the on-going changes in Greenland has thereby focused on a set of challenges that the country is facing in the process. The most central and prominent ones include: environmental issues and their effects (e.g.[167, 168]), (potential) geopolitical tensions (e.g. [166]), Greenland's political independence against the backdrop of its colonial past (e.g. [169, 170]) as well as societal challenges, including high suicide rates and domestic abuse (e.g. [86, 171]).

The wide range of academic disciplines that engages with questions of change and transformation in Greenland is indicative of complexities of the challenges facing the country and its people. However, a common denominator that stretches across the various fields of research is Greenland's exposure and resilience to exogenous shocks and influences; past and present. The role that digital technology plays in this context has, however, received comparably little attention. Yet, in the context of the country's colonial past and ongoing debates related to self-determination and cultural re-appropriation, increasing access to stable and affordable digital connectivity offers new ways of knowledge exchange and conservation. The Greenlandic case further differs from other studies on the societal implications of digital technologies as improving Internet access does not substitute and expand existing physical connections, but it creates links between people and entities who, previously, had only limited opportunities for interaction. Digital technologies thus give Greenland's population new ways of shaping, responding and adapting to the above-mentioned transitions and developments and can hence serve to reinforce civic rights, notions of self-determination and otherwise marginalised perspectives and needs of certain population groups.

3.2.1 The Concept of Digital Citizenship

As globalisation has brought the world closer together by increasing overall mobility of goods, services and people, the concept of citizenship has received renewed attention to answer an array of questions around identity and belonging, rights and obligations. Since the work of Aristotle, scholars from various disciplines have debated the comprehensiveness of the term *citizenship*. Due to the centrality of the concept to the Greenlandic independence and digitalisation process, the cornerstones of this debate need to be laid out and discussed in the broader framework of digitalisation through a more novel yet equally ambiguous term: *digital citizenship*. Digital citizenship emerged in the early 2000s, however, no clear definition of the concept has crystallised in the literature so far.

In the Greenlandic digitalisation policy 2018-2021, which is discussed in Chapter Five, digital citizenship plays a central role in describing ways in which the scattered Greenlandic population will be able to surmount local geographical and historical hurdles to actively partake in a modern, autonomous Greenlandic society. In the Greenlandic context, this term is mainly framed on the basis of the country's digitalisation policy.

The term *citizenship* triangulates legal, normative and political aspects of an individual's existence in society. In the past decades, the common idea of citizenship has moved beyond the Aristotelian notion of public participation as civic obligation and "the expression of the citizen's full potential as a political being" [172, p.13]. United Nations Educational, Scientific and Cultural Organisation (UNESCO) defines the term as "a collection of rights and obligations that give individuals a formal juridical identity" [173], thus underlining a citizen's legal standing under the jurisdiction of a defined political/legal entity and further notes how this definition had later been extended into the social realm. Accordingly, the organisation further states: "citizenship is today considered to be the binding element of a national community and is an instrument and object of social closure" [173] and thereby touches upon the notion of national identity as being intertwined with the concept of citizenship. Delanty [174, p.286] notes lists accordingly rights, responsibilities, participation and identity as the four dimensions of citizenship. Feminist scholar Lister argues in this context of the widening of the concept for human agency to be the guiding principle in any consideration of the rights and participatory traditions framing the concept, thus placing the civic empowerment and protection of the citizen at the heart of the citizenship terminology [172, p.14].

However, how does digital citizenship differ from a concept that has been mangled through

academic debates since ancient Greek philosophers coined the term? The first publications that took a *digital turn* on citizenship were mainly concerned with Internet accessibility as the determining factor of becoming a *digital citizen*, implying a mere transferal of previously established understandings of citizenship into the digital realm [175, 176]. Katz [177] famously drew the image of the digital citizen as a new form of “super citizen”: empowered, informed and respected (as seen in [178]. Schou and Hjeltholt [178] argue that, despite vigorous criticism, the term has lived on as a key term in the discussions around the effects of advancing digitalisation on the role of citizenship in modern democracies. Mossberger et al. [175, p.1] eventually came to define digital citizenship as “the ability to participate in society online”. Participation may thereby take many forms, ranging from the use of online government services over accessing information to the voicing of political opinions and civic engagement through online platforms [175, 179].

Over the last two decades, a more nuanced picture of the concept has emerged, shifting from questions on the mere accessibility of digital public services towards the practice of “safe and responsible behaviour online” [180, p.2064]. Scholars have further discussed how these normative guidelines on respectful online behaviour were to be integrated into school curricula [180, p.2064]. These predominantly normative debates have dominated relevant HCI literature on digital citizenship, placing the main focus on appropriate interactions and behaviour patterns as key to successful digitally mediated civic participation. Various researchers have criticised this attempt to define universal behavioural standards as blind to the role of the respective local political, geographical and historical context in which digital citizenship functions [178]. Various factors that may affect an individual’s likelihood to engage in online participatory activities has thus been left out of consideration. Using the Estonian example, Tammpuu and Masso [181] criticise the disregard of “digital identity” when debating the role of digital citizenship in modern societies. Choi et al. [182] interpret a lacking understanding of “how individuals’ sense of digital citizenship and their Internet self-efficacy/anxiety are interrelated” as a weakness of the current digital citizenship literature [182, p.101]. Individual motivations and concerns that evolve in the digitalisation of basic services and interactions thus remain widely unexplored aspects of digital citizenship research.

It thus becomes apparent that digital citizenship, as a concept, is mainly framed in terms of “being able to use digital technologies . . . as a prerequisite for competitiveness and inclusion in the political community” [178, p.519]. Yet, the extent to which newly introduced digital governance structures and practices may affect individual or collective experiences and moti-

into one of the most sought-after commodities on the global market, has blurred the lines between hard and soft power. However, apart from the power of statistics, data surveillance and other related themes, these reflections have also given rise to debates on (post-colonial) data sovereignty, especially in the context of indigenous and other minority groups.

The concept of *calculable territory* emerged within the field of Human Geography in the 2000s as a new perspective on the impact of data collection and evaluation on the definition and *calculation* of political territory. The emergence of calculable territory as a crucial element of modern governance was extensively discussed by e.g. Hannah in his article on the West German census boycott movements of the 1980s [183]. In reference to the work of Elden (2002-2007) and Foucault (1990-2008), Hannah argues that based on a “general science of order”, modern states would tend to rely on algebraically derived representations of societies’ complexity in their everyday functioning and exercise of power [183, p.67]. Functioning within the geographical borders of existent states, this approach renders territory “legible”, according to Hannah, by connecting population data with geographical locations. He further highlights that this “legibility of calculable territory” relies, despite the advancement of data collection technologies, on the cooperation and involvement of the population who need to be ready to help collecting or volunteering their personal information to be collected [183, p.70]. In this context, Dodds discussed how Arctic territory and particularly the outer continental shelf have been at the centre of a *legibility debate* as territorial claims in the Arctic, and the management thereof, are being reevaluated against the backdrop of fundamental environmental and political shifts in the region [184].

Rose-Redwood elaborates on the idea of the calculable territory by drawing on a study exploring technologies of street addresses in the United States [185]. She explores how these geo-coding systems relate to notions of security: “once the landscape is encoded with such a regime of inscriptions, these references can then be mobilised within the centres of calculation to enhance the security mechanisms of the modern state [185, p.314].” Referring to the better accessibility of certain areas for e.g. ambulances is thereby described as a “double-edged combination of disciplinary and life-enhancing power” [185, p.314]. State control and surveillance thus go hand in hand with extended individual freedom, making the two increasingly inseparable as an individual’s collected (geo-)data progressively resembles existence value. Yet, it also becomes apparent that it is seldom the citizen who is in control of the respective geo-coded design nor of the data collected as the individual is transferred into a *numerical citizen*; a specific data-set offering comprehensive insights on an individual community member’s life.

The matter of data ownership and the growing underlying legal and political complexities have become a widely discussed issue area that has brought experts from various fields together to ensure the efficient and ethical storage and management of data. In line with the argumentation around calculable territory, the concept of data sovereignty emerged as a concept that binds data collection to governance structures and state control more specifically. The idea has been defined as “managing information in a way that is consistent with the laws, practices and customs of the nation-state in which it is located” [186, p.42]. However, data sovereignty thereby also focuses on empowerment and self-determination through taking control of one’s own data on state level. Accordingly, through the idea of *indigenous data sovereignty*, scholars have discussed how data sovereignty can reinforce indigenous peoples autonomy through the possibility to manage and store their own data, beyond the respective overarching regulations on state level. The United Nations Permanent Forum on Indigenous Issues (UNPFII) has addressed the topic on various occasions. During the meetings in question, the concern was raised by indigenous delegates as to the “relevance of existing statistical frameworks for reflecting their world views” and have emphasised indigenous communities’ ”lack of participation in data collection processes and governance” hence leading them to “servicing government requirements rather than supporting indigenous peoples’ development agendas” [187, p.3]. Indigenous data sovereignty would thus “focus on the vision and world views of indigenous peoples, based on collective rights, such as those to identity, land, territories and resource, free, prior and informed consent and indigenous women’s participation in local, national and international decision-making processes” [187, 188, p.3]. These voiced concerns underline a disconnect between the modern data-driven international system and the interests as well as values of indigenous communities as represented in the statements of the UNPFII. Habermas described the overarching dilemma faced by modern constitutional states in the article “Struggles for Recognition in Constitutional States” [189]. Building a country’s legal code, as in the case of Greenland, on “the concepts of individual rights and of the individual legal person as the holder of rights” [189, p.128] would challenge simultaneous efforts to recognise collective identities and offer equal protection of different forms of social life.

3.3 Digital Civics and the Hurdles to Digital Inclusion in Remote Communities

As digital technologies are increasingly becoming an integral part of our everyday lives, permeating into all aspects of our social and political existence, the field of HCI took a *civic turn* over the past years [190]. Concerned with the power implications of an increasing number of socio-technical systems being imposed on individuals and communities, digital civics aims to create the platforms which allow citizens to take an “active role in shaping their environment” [191, p.507]. The underlying “participatory imaginary” shall help citizens and governments alike to discuss, understand and test alternative, digital ways of civic interaction [23, 157, p.62].

Theoretical debates around, *inter alia*, Sen’s [192] *capabilities approach* have formed a central pillar in the identification, understanding and discussion of the requirements that need to be fulfilled to successfully navigate new digital spaces and to use and contribute to digital civic engagement in a meaningful way [192]. The underlying user-centred approach thereby aims to identify the shortcomings in technological design and to counteract further structural exclusion of groups who have been “bypassed by networks of communication and investment” and thus risk to find themselves in a “downward spiral of underdevelopment” [14, pp.4,10].

The capabilities approach was coined by Amartya Sen in the 1980s/90s and has become a central concept in development studies and practices. However, it has also gained importance in research related to ICT4D and HCI4D to examine the decision-making processes that shape an individual’s choice to engage with new technologies in a development setting. Sen’s approach is defined as “a process of expanding the real freedoms that people enjoy ... [enabling them] to lead the lives they have reason to value” ([193, pp.3,293] as seen in [194, p.675]). An emphasis thereby lies on *real* freedoms as Sen’s concept focuses on the attainable *functionings* of an individual, meaning “things a person may value doing or being” [194, p.676]. Foregrounding individual agency and well-being rather than economic power and growth, Sen’s capabilities approach has been described as a “more holistic view of development” which builds on “trusting people to be empowered agents of their own development” [194, p.676]. Sen summarises the role of economic components in his development theory as follows: “[u]ltimately, the process of economic development has to be concerned with that people can or cannot do, e.g. whether they can live long, escape avoidable morbidity, be well-nourished, be able to read and write and communicate, take part in literary and scientific pursuits, and so forth” [195, p.497]. Kleine [196, p.676], however, also highlights that due to the conceptual depth of Sen’s work most

scholars and development practitioners have referred to the capabilities approach primarily as a normative framework.

For the present work, it is deemed crucial that the conceptualisation of civic engagement also draws on the “[expansion] of real freedoms” [193, p.3], as described by Sen. In the specific Greenlandic setting, where stable and affordable digital connectivity is not only opening up democratic processes on an institutional level but also unprecedented opportunities for broader (post-colonial) community engagement, the capabilities approach can serve to better understand shifting agencies and motivational driving forces in the digitalisation process. Yet, given the specific topographical and historical circumstances in Greenland, different (infra)structural hurdles need to be taken into considerations when exploring digitally enabled participatory transformation processes in Greenland.

Previous sections have described the rise in popularity of social media and other digital means to address issues of public concern among indigenous peoples and other marginalised groups [129, 137]. However, a number of studies have also highlighted the different structural hurdles that the groups in question still encounter in their everyday usage of these digital services, obstructing inclusive public participation. Past research has found, for instance, that the design of the most prominent socio-technical systems that are used in various community settings around the world is primarily based on user experiences from technologically high-developed places [125, 197]. Only little inspiration with regard to the layout and functioning of these systems is thus derived from rural or other strands of society which are less represented in the world’s leading tech hubs. Bidwell and Browning [197] as well as Bidwell and Hardy [132, p.145] stress accordingly: “Inhabitants of rural places often encounter a disjuncture between technology and their lived experience that reflects incompatibilities between concepts about communication produced in urban places and rural life”. The authors further criticise the heavily text-based, Western-centred communication approach which leaves little space for other cultures of knowledge transfer, referring to traditions of orality in South Africa and Australia, which also play an important role in Inuit culture [73, 132]. Accordingly, it can further be assumed that corresponding telecommunications policies may tend to be equally based on the inherent values of existing technological solutions and the lived experiences from technologically high-developed areas which shaped their functionality. Furthermore, policy development might be constrained by the existing technologies and a lack of resources to focus on and adapt to the needs or capabilities of the respective underrepresented communities. The potential lack of adapted technologies and policies suggests that the “participatory imaginary” of digital civics

might be more difficult to realise and entrench in (technologically) marginalised or hard-to-reach societies.



Figure 3.2: Small hut with radio antenna on the outskirts of Kangerlussuaq. As described in Chapter Three, communication technologies look back on a long history in Greenland, aiming to provide even remote places and remotely placed with access to supra-regional information. The radio has been one of the most popular means of information dissemination in Greenland for decades (author’s own image, June 2018).

The additional disabling effect of weak (digital) infrastructures has also been explored in this context, focusing primarily on communities in geographically remote and/or low-income areas [198–200]. Connectivity and access to digital networks has been identified as a central concern for the communities in question, representing the primary bottleneck as for the usability of any digitalisation measure, especially in rural areas. In recent years, it has been discussed whether access to reliable digital connectivity can be regarded as a human right equal to other inalienable freedoms such as access to education, clean water and free speech that constitute the basis for an autonomous individual development [201–203]. A number of countries, including Greenland [3], as well as organisations, including the UN, have confirmed that the *freedom to connect* should be added to the list of fundamental human rights along with e.g. the right to

freedom of expression and the right to self-determination [204]. A widely held criticism against this is constructed around the argument that “technology is an enabler of rights, not a right itself” [205]. Others have noted that Internet access has today become inseparable from other inalienable rights, such as the right expressed under Article 8 of the European Convention on Human Rights (ECHR), the right to family and private life, “as email, Skype, Facebook and Twitter are now essential tools of interaction between friends and family” [206].

Along with the lack of modern digital infrastructures in rural areas that fail to supply the local population with the same connectivity opportunities as in urban areas, Salemin et al. [199] also highlight the consequential lack of skills to employ digital services once connectivity is established. Further issues that have been addressed in this context include, amongst others, a range of more general aspects including anxiety and self-efficacy, which additionally might affect engagement with digital technology [207].

Limited access to digital technologies can thus encompass a substantial limitation of individuals’ (participatory) capabilities, hindering their possibility to benefit from digital citizenship as well as fundamental practices such as maintaining family relationships in rural or hard to reach areas. As alluded to above, the hurdles to exercising digital citizenship, however, extend beyond access-related issues and are intertwined with peoples’ specific and context-dependent *functionings* [195]. The digital divide literature has addressed a number of problems that may arise in a digitalised yet diverse societal setting [191].

The concept of the digital divide has mostly been addressed through binary characteristics and categories that aim to identify those who derive a personal benefit from digital progress and those who find themselves in a disadvantaged position. The major divides that have been discussed revolve around issues of access, age, location, skills, wealth and skills [208]. While digital divide research initially mainly focused on the degree of connectivity itself (first-level digital divide), many scholars today criticise the assumption that the sole accessibility of digital networks is able to supply (insights into) the allegedly level playing field of digitally enabled capabilities [201, 209, 210]. Following research hence contributed to disclose what has been described as the second-level and third-level digital divides [211], which focus more specifically on digital content creation and consumption by looking at individual motivations and abilities to function as an active contributor to the digital sphere or as a passive consumer of the provided information or services [208]. On this basis, various studies further found that social inequalities tend to reproduce themselves in online spaces through usage and access patterns, marking inequality despite improved digital connectivity as “a systematic or structural characteristic of

societies” [208, 212, 213, p.31]. Having access, the necessary skills as well as the will to utilise digital services would hence not always suffice to find oneself on the “right” side of the digital divide [211].

Offering stable connectivity across most of Greenland, despite permafrost and migrating icebergs hampering the expansion of the necessary cable infrastructure, constitutes significant progress in the country’s digitalisation process. However, when examining the ways in which Greenland’s digitalisation process can impact on the populations’ ability to practice civic engagement both on a private and public level, a number of factors need to be taken into consideration beyond the twofold juxtapositions of the digital divide literature to account for a more contextualised analysis of the societal and historical complexities at play.

3.4 Aspects of Human Security in HCI and Greenlandic Identity-Building

Within HCI, the concept of security has mainly been looked at in a twofold manner; examining security threats to technological systems on the one hand and the user’s experience of feeling secure when utilising a device or service, on the other [214, 215]. However, it has been argued that the discipline needs to widen its theoretical security outlook [216]. Stretching the theoretical framework beyond the degree of perceived security within technological systems of preferably high integrity would allow to place security debates within the field in a broader economic, political and social context [215, p.308]. Security theories that originate from the social sciences, such as the positive/negative security debate have thus been employed to address individual concerns but also to focus more specifically on the lived experiences of marginalised groups [24, 217].

Recent transition processes have raised questions around the construction and representation of (political) identity and nationhood in Greenland [2, 218, 219]. Digitalisation, with its ability to bridge geographical and communicative distances, has been playing an increasingly important role in this process [1]. As mentioned previously, the GoG has indicated the ambition to frame the concept of a Greenlandic digital citizenship in the context of these changes and developments. The multi-scalar complexity of the situation and GoG’s ambitions demand to move away from two-dimensional notions of physical survival, dissociation from Denmark and military security interests in order to allow for a more inclusive understanding of human

security in the context of Greenlandic nation-building in the digital age. The following section will suggest the concept of positive and negative security [27] as theoretical framework as it might serve to add insights on how the use of digitally enabled services are used to realise aspects of Greenlandic citizenship on an individual as well as collective level.

3.4.1 The Positive/Negative Security Debate

The theoretical tradition of Political Realism has long dominated the conceptualisation of security within a range of social sciences, particularly within the discipline of International Relations (IR). Security has consequently mainly been framed as a state which was maintained against external threats and hostilities and thus based on an “epistemology of fear” [32, 220, p.839]. The hence predominantly negative connotation of the concept in this traditional sense, has marked part of the debate which looks at how states maintain and promote their sovereignty and integrity. Given the realist foundation of the framework, military and economic means still play a central role in the conceptualisation of negative security, focusing on the maintenance and defence of security on a national and international level. Negative security accordingly widely “relates to the treatment of security as a concept we wish to avoid, one that should be invoked as little as possible” [32, p.836].

In the early 1990s, as the Cold War came to its end, security studies started to shift from focusing on state actors as the primary security-provider and -concern towards looking at identity-bound human collectives as new referent objects [221, 222]. The Copenhagen School, with Barry Buzan, Ole Wæver and Jaap de Wilde at its core, famously re-examined contemporary, non-military security questions as arms races faded from the spotlight, establishing the concept of *securitisation* and beginning to frame negative security’s counter-image of positive security [223]. In order to *broaden* and *widen* the security concept, the associated scholars aimed to look beyond the traditional realist notions of physical state survival by including, for instance, economic or political aspects that may impact upon the perception of socially constructed threats to national security [222, 224, 225].

The claims of the Copenhagen School were later criticised by, *inter alia*, Bill McSweeney and Ken Booth whose work contributed considerably to the development of the concept of positive security or the “freedom to live free from fear” [24, 226, 227, p.3]. Critically assessing the Copenhagen School’s focus on national identity, McSweeney suggested the individual as “ultimate referent object” in order to subvert the divisive logic inherent in the Copenhagen School’s collective approach [32, p.837]. In line with this idea of individual freedom, Booth

further highlighted the importance of valuing personal autonomy within a group that is bound by “a sense of belonging and a distinctive network of idea and support” [28, p.120]. In the work of Booth and McSweeney, the security concept thus transformed, according to Roe [28, p.117], into a “site where multiple identities can be realised, identities which transcend the confines of community as defined solely by the ethno-national and which can give rise to complicity of mutual trust in relations”. Similar to human security, positive security moved thus even further away from the structures that underlie and determine euro-centric state constructs towards a stronger consideration of human needs and thus to the integration of ontological security concerns which will be discussed in more detail below [27]. Notions of everyday security hence also gain in importance through this conceptualisation of security. In a digitalisation context, everyday security has been defined as “a form of socio-technical security co-constituted of both technological protection mechanisms designed to protect assets and of relational social practices that enable people to build and maintain trust in their daily interactions” [216, p.464]. This inclusion of everyday security concerns within the framework of both human and positive security has also been deemed essential for the inclusion of marginalised groups and individual concerns in the field of security studies [28, 32, p.838]. Hoogensen Gjørsv draws another comparison between the two fields by marking that security is not only wanted “in relation to avoiding threats, but also to building their [individual] capacities” [32, p.843].

However, Roe [27] disagrees with the exclusive role ascribed to the individual by McSweeney and Booth. He highlights that security interests of a state and its inhabitants are often inseparable, referring to the protection of human rights as an example [27, 32, p.793]. He further argues for the inseparability of positive and negative security in certain cases, noting that positive security should not be seen as a replacement of negative security, but rather as something *additional* [27, p.778]. Hence, Roe claims that states like individuals, seek and practice not solely negative but also positive security. However, following the reasoning of McSweeney and Booth, positive security is defined and constructed along “human needs”. Roe suggests that instead of focusing on a human attribute such as a *need*, to rather refer to *values* when trying to understand *which* problems are being securitised and *how* they are being securitised on the state level [27, p.778]. Considering the various motivational factors and potential relations with “enemies” that may drive a states securitisation efforts, Roe further emphasises that “not all such [securitising] routines (...) will be consistent with positive security” [27, p.778]. He consequently establishes the “promotion of ‘justice’ ” as the key attribute marking a state’s positive security perspective [27, p.778]. Hoogensen Gjørsv notes accordingly that positive se-

curity builds on “non-violent measures, (...) context, values, and security practices that build trust“ [32, p.835]. In this context and building on Booth’s work, Graham Smith [228] stresses four questions to be raised in order to understand securitisation measures while undermining exclusive interpretations of security: “Who or what is being secured? Who or what is doing the securing? Who or what is the subject being secured from? And why is the subject being secured?” [228, p.490].

Positive security on individual and state level are thus deeply intertwined with values being the common denominator which ensure maintenance and continuity of practices which comply both with state interests as well as with practices reinforcing individual freedoms and identities. In order to position the latter in an Arctic context, the following sections focus in more detail on the concept of ontological security and everyday anxieties.

3.4.2 Ontological Security

Looking at individual everyday digital practices in Greenland through the positive/negative security lens, ontological security or the “maintenance of the day-to-day routines that provide us with a sense of who we are and how we relate to others” needs to be taken into consideration [27, p.778]. Understanding how citizenship is reproduced and performed through digital routines may give further valuable insights regarding what freedoms in terms of positive security are perceived, performed and securitised by individual citizens in the digital sphere.

Ontological security is disturbed through a perceived threat to the continuity and stability of a person’s or a collective’s existence, evoking existential anxieties that will be elaborated upon in the following section [229, 230]. This perceived threat often comes from the imminent change of an established narrative around the concepts of *Self* and *Other* that have been formed by long-lasting repetitions of everyday practices. Rather than adapting a new narrative, people might cling to replicate discriminatory and obsolete identity images of in- and out-groups and thereby protract the solution of adversarial situations by intending to uphold their ontological security through a coherent and stable narrative [31]. This also highlights the active role of individuals and groups in “securitising subjectivity” and thus in shaping perceptions of identity and security that also affect security on state-level [231]. “Safe spaces” which enable individuals to create, follow and share such routines with others can thus be seen as a prerequisite of more inclusive ontological security practices [26, p.125].

In the digital era, the maintenance and creation of ontological security has acquired further layers of complexity as everyday practices take place both within the off- and the online

realm in a network of multi-way communication. That way, narratives that shape, challenge and reinforce notions of ontological security stretch across digital and non-digital platforms of intersubjectivity. Navigating through both the offline as well as through the digital world, it becomes increasingly difficult to maintain a coherent representation of the self. In the early years of the Internet, most users felt relatively anonymous online [232]. However, recent scholarship and revelations with regard to online privacy practices of states and private companies have proven how closely our online profile is linked to our material self and how it connects us to the state and other overarching institutions and structures [233].

Studies have also revealed certain mechanisms and behavioural patterns that have evolved, partly as people attempt to maintain substantial continuity. The strive towards ontological security in the digital age has, for instance, been linked through several studies to a contribution of digital news consumption and networking to “ideological polarisation” as we choose the information sources that cause the least cognitive dissonance [234, 235]. Other actions of ontological control-recovery that have been discussed in the relevant literature include the performance of “visual self-aspects” on social networking platforms such as Facebook [165].

When applying theoretical frameworks that include concepts such as the sense of self to socio-political settings in Greenland, it is important to consider the indigenous standpoint on the ontological nature of these thought-constructs. The self-concept, as it is used in the ontological security literature, is mainly based on an established yet on-going debate within Western social psychology, informed by the epistemology of Enlightenment that revolves around the individual’s self-consciousness. This approach has been criticised by feminist researchers and scholars of colour who stress that a variety of subjectivities need to be respected while being aware of potentially oppressive underlying mechanisms that might devalue or disregard perceptions of (in)securities that lie beyond Western epistemological systems [236].

3.4.2.1 Everyday Ontological Anxieties

The concept of anxiety describes a quite universally experienced unpleasant impression that is accompanied by inter alia “a sense of uncontrollability focused largely on possible future threats, danger, or other upcoming potentially negative events” [237, p.1249] and is the central affect underlying ontological insecurities [31]. Freud pioneered the research before the terminology became integrated into psychoanalytical research on different mental health conditions and later into sociology and ontological security literature. Søren Kierkegaard followed by Jacques Lacan marked the term for sociological research by linking it to an illusionary, intangible narrative of

freedom that lies at the heart of our anxieties which can also be linked to what Lacan described as *objet petit a* [238, 239]. The individual needs to relinquish itself from a desired object as it submerges itself to a “symbolic structure” of a given authority in the process of becoming a political subject. The intangible anxiety thus lies in the gap between subject and authority. The individual renounces one’s personal desires to obtain imagined benefits, such as security, offered by the symbolic structure of the given authority.

Anxiety then appears “when lack is no longer lacking ... where an object of fear suddenly occupies the lack” and as the symbolic order collapses [239]. Objects of fear are often directed towards “comprehensible and identifiable” risks and problems that demand a relatively straightforward policy response or that can become part of a clear political incentive structure [31]. With regard to anxiety, however, Zevink [239] stresses its “more porous, liquid, unidentifiable and perhaps even absent” nature, which is more difficult to remove from social and political realities. The coping strategies on individual and public level thus rather require a “cure” to “heal or eradicate the source of discomfort” and have presented policy makers and citizens alike with a complex challenge [239].

Dealing with an intangible affect that exerts considerable influence and power over equally intangible individual and collective (political) identities reflects the complexity of today’s experience of the political subject. Greenland and the Arctic, “a region undergoing dramatic environmental, political and social transformations” [240, p.8] face a distinctive set of challenges that have been redesigning everyday life experiences. Accordingly, in recent years, a lot of geopolitical research has been focusing on “Arctic anxieties” against the backdrop of climate change and its transformative power in the Polar Regions. This implied an analysis often through the lens of classical geopolitics focusing on developments in the Arctic around concepts such as balance-of-power. Objects of fear had here been placed in the *objet petit a* in form of, for instance, strategic vulnerabilities or other elements of a *realpolitik* of the “scrambles for the Arctic”. While these narratives tie in with many of the political concerns addressed also in the predominant international political forums, the local Arctic population has often just played a cosmetic role in these considerations and consultations [166].

Ontological anxieties thus do not only stem from abrupt changes challenging a constructed narrative of the self but also from elements challenging perceived security provided by overarching constructs. In the case of the Arctic, literature has engaged with concrete *objects of fear* by looking at elements of international security or economic opportunities in form of resource exploitation or international shipping routes, relevant for a global audience [240]. Several scholars

have argued that these approaches have been containing concerns more specific to the indigenous and non-indigenous local population in a colonially informed framework of preconceived ideas [95]. Literature that engages with identity formation in the Arctic has been suggesting and emphasising different factors beyond the postcolonial that may be decisive in the shaping of local ontological anxieties. Nuttall [241], for instance, addresses the tensions and insecurities arising from the gradual disengagement from nature, as it is increasingly perceived and treated as a commodity rather than an integral part of local livelihoods [241]. To what extent Greenland’s digitalisation process might entail a similar transformative or disruptive impact on ontological securities and anxieties in Greenland has, however, only received limited attention in the literature so far.

3.4.3 Security and Emancipation: Feminist Security Theory

A growing body of HCI literature has engaged with feminist approaches aiming to support the development of more inclusive and accountable digital technologies. Several studies have advocated an increased level of awareness of the various ways in which technologies may contribute to both the maintenance and the emergence of marginalisation and gendered exclusion, e.g. [242–244]. Sultana et al. [245], for instance, highlight the complexity of issues that women in rural, low-income and patriarchal societies are facing; circumstances which entail that ill-conceived and maladjusted digital technology might not empower but rather endanger the agency of female members of isolated and marginalised communities.

The notion of empowerment is closely related to the conceptualisation of security as emancipation. In some schools of security theory, security is discussed as a form of empowerment. As argued in the precedent sections, security can be conceptualised not only as protection from harm but also the state of being free from fear [27] (as in [5, p.3]). Feminist security theory is part of a tradition of security thinking that challenges the notion of the state as the site of security. It engages with inclusive and positive notions of security and often also presents security as a collective rather than as an individual endeavour. Feminist security theory is part of a wider tradition of feminist inquiry: “feminist inquiry is about understanding how things work, who is in the action, what might be possible, and how worldly actors might somehow be accountable to and love each other less violently” [246, p.7] and where a feminist conceptualisation of security is framed in the everyday [6] (as in [5, p.3]).

The collective dimension of security can, for instance, be seen in feminist theorising of peace-building. In her work on feminist perspectives of security theories and practices, Heidi

Hudson [7, 8] discusses the role played by gender in peace-building processes taking place in previously conflict-ridden areas. Hudson argues that gendered subordination and violence are often not only a consequence but also a cause for internal conflicts and instabilities on state-level and thus require more consideration also in institutionalised processes such as peace-building [8]. She further highlights how the liberal intervention design has been depriving women in the affected regions of their agency by reproducing gendered power asymmetries and “instrumentalist interpretations” of women’s roles [8, p.288]. Incorporating the specific experiences and security concerns of both men and women is thus important at all stages of the securitisation process to facilitate successful and sustainable peace-building measures. This increased contextualisation and broadening of the notion of security further enables us to “transcend the gap between private and public peace processes” which ensure that “women’s informal peace-building contributions [become] part of high politics” [8, p.316]. As an example, Hudson refers to different ground-up women’s movements in Africa that successfully contributed towards peace-building processes by promoting collective action including “networking to share common experiences and practical training for conflict resolution and trauma counseling” [8, p.299]. Such measures address women’s “concerns and goals” collectively which allows them to be heard on a higher political level (as in [5, p.3]).

Within the feminist security scholarship and practice equal emphasis is placed on listening and telling as a means of acknowledging, celebrating and exploring the tension between inclusion and exclusion. Practices of storytelling and story listening as well as the use of humour are collective practices that seek to build security through inclusion rather than exclusion. Storytelling and story listening highlight stories of discordance not concordance and the act of telling and re-telling is as transformative as listening [247]. Humour is an important technique for the telling and re-telling of stories as it challenges and de-legitimises acts of insecurity [247]. Looking at technology practices through the lens of positive security uncovers different forms of security and acts of securing. As part of this work illustrates, such an understanding is important for the development of positive and supportive technology policies that are attentive to gendered understandings of security – to develop approaches that *listen* to the everyday experiences of women in remote communities (as in [5, p.3]).

HCI scholars have encouraged further research into both the study of unintended gendered consequences of increased technology-usage as well as the integration of feminist perspectives in design and research practices. They have called for HCI research that focuses on e.g. feminist participatory research methods and an augmented awareness of different cultural contexts and

overlapping identities [244, 248–250]. Further studies, notably within HCI4D and ICT4D, have looked at cases of gender empowerment and enhanced human security. Such studies describe several instances of women overcoming social isolation and economic dependence in rural or less developed areas through, for instance, the use and accessibility of mobile phones and social networking sites [251–253]. Melissa et al. [254] looked at social media as a supportive tool for female-led micro businesses in Indonesia. Rupok and Chowdhury [255] explored how e-learning has helped unemployed women in rural Bangladesh get involved in the fisheries industry, thus, alleviating the effects of poverty in those areas. Whilst such studies have explored the role of technology in the empowerment of women in marginalised and remote communities, Chapter Six will use a critical feminist lens to understand the underlying security faculties shaping emancipation and digital citizenship for women in Greenland.



Figure 3.3: These polar bear illustrations decorate a school building in the Nuussuaq district. One bear is drawn in traditional Inuit clothing while another bear carries the message “everybody matters” (author’s own image, May 2018).

3.5 Concluding Remarks

A growing amount of research within digital civics and the broader field of HCI has been focusing on various marginalised communities and their use of digital technologies [256, 257]. Researchers have thereby investigated both the opportunities and the barriers to digital connectivity faced by these communities as more civic practices are being transferred to the digital sphere. Exploring concepts such as digital citizenship and indigenous data sovereignty, this chapter explored and discussed how improving digital connectivity can serve as an emancipatory agent to enhance the self-determination of (geographically) marginalised communities.

Improved access to and informed use of digital services emerged in the relevant literature hence as a transformative but also disruptive force. In this context, the chapter further explored potential hurdles, challenges and negative unintended consequences that may arise in the wake of comprehensive digitalisation efforts. Previous research found that possible barriers can take various forms and may stem from e.g. lacking infrastructural development, structural discrimination and/or maladjusted socio-technical systems and policies. Especially within the disciplines of ICT4D and the emerging field of HCI4D, researchers have been examining the role of connectivity and access as well as usage and serviceability issues to understand the wider social implications of digitalisation on civic engagements practices, marking the potential reproduction of inequalities and power imbalances and oppression in the digital sphere [258].

Drawing on the work of Sen [192], this chapter further emphasised the role of individual agency in shaping digital public spheres and their role within a society – a process of particular importance in the Greenlandic setting as the country is undergoing a number of fundamental political, social, economic and environmental transitions. In this context, a set of critical security theories were foregrounded as theoretical frameworks to explore and better understand these dynamics. Emphasising the need for broadened conceptualisations of security, the concepts of negative/positive security [27] alongside ontological security [239] and feminist security [6] were introduced. With their shared focus on understanding and promoting security practices on an individual or collective rather than state-level, the discussed theories may serve to reach and develop a more contextualised awareness and comprehension of the security needs, concerns and practices that shape digitalisation processes from the ground up.

Chapter 4

Research Design and Methodology

4.1 Introduction

This chapter outlines the considerations that laid the foundation for the planning and implementation of both the first study conducted with members of the Greenlandic community in Denmark and the more extensive fieldwork carried out in Nuuk, Greenland. It also explores to what extent these considerations helped to manage and understand my lived experiences in the field and how the chosen research design and methods guided the analysis to provide insights on the role of digital information sharing in modern Greenlandic identity-building processes in line with the three research questions:

1. How does access to digital technology and digitally mediated networks impact upon individual Greenlanders ability to perform, realise and benefit from their citizenship?
2. What are the motivations, opportunities and limitations for Greenlanders to share digital content on social media, within and beyond Greenland – and for what purpose?
3. How do digital information sharing practices among Greenlanders influence the representation of everyday Greenlandic (digital and visual) culture?

The multimethod-approach of this project is informed by Community Based Participatory Research (CBPR) principles as well as feminist practices that have played an increasingly important role in HCI and digital civics research [249, 259, 260]. However, examining contextualised unintended consequences of digitalisation in Greenlandic communities, the present research

design extends existing methodological approaches through its strong focus on researcher positionality and standpoint theory [30].

The four chosen methodological tools are described in detail in this chapter, exploring the combination of (1) in-depth interviews, (2) ethnographic observations, (3) participatory focus groups as well as, however to a much smaller extent, (4) policy analysis (see D.1). Furthermore, the chapter illustrates how initial expectations and perceptions of the project evolved over the course of this personal and research journey. My growing understanding of Greenland’s colonial past and the role of indigenous culture in its modern identity-formation process thereby played a central role and is reflected in the choice of terminology and the overarching methodological framework. As this chapter differs from other parts of the present work in its focus on researcher positionality and how it affected the development of the project, this chapter will mainly use the first-person perspective rather than neutrally referring to ‘the researcher’ as it is done in other chapters of this thesis.

4.2 Research Design and the Co-Production of Knowledge

The overall design of my research builds on the principles outlined by established research institutions such as the International Arctic Social Sciences Association (IASSA). The IASSA states that their work “promotes mutual respect, communication and partnership between researchers and Northern residents” [261]. Such principles underpinned my research approach and the overarching methodological design as they reinforced the critical need to co-produce knowledge with the Greenlandic community in the context of the present research project. The principle of co-produced knowledge emphasises the equal standing and collaboration of both researcher(s) and participant(s) to reach more collective and holistic insights through joint learning [262]. This approach has grown in importance within various academic fields over the last years, particularly in research areas that aim to include the insights and experiences of underrepresented groups within the often Western-dominated academic literature. Environmental sciences or HCI, for instance, have employed this approach to learn from marginalised communities about their experiences and perceptions of climate-related and socio-technical developments [263–265]. This form of research design might eventually allow for a higher usability and relevance of the findings for the respective communities by providing an additional platform to discuss, analyse and spread their insights and lived experiences; a principal concern of the present work [266].

Hence, the following research design created a framework that helped me understand and

share the stories and insights with which the participants entrusted me during my research stay in Denmark and during my extended fieldwork in Nuuk. I spent about one week in Denmark from the 18th of November – 25th of November 2017 as well as five additional days, two before and three after my stay in Nuuk. During those periods I stayed mainly in Copenhagen but also went for one day to Aalborg where I met further participants. I stayed in Nuuk from the 08th of May to the 05th of June 2018. As all visitors to Nuuk (at the time), I flew to Nuuk via Kangerlussuaq where I had enough time during my layover to visit the town but unfortunately, not to recruit and interview participants. The chosen methodology thereby aimed to provide a framework that enabled me to learn about digital information sharing, citizenship and identity-building of people who identify as Greenlandic or are closely related to everyday life in Greenland in both Denmark and Greenland.

The chapter firstly describes the overall research setting in both Denmark and Nuuk, also with regard to the current state of digital connectivity in those two places. Secondly, the project’s ontology, epistemology, methodology and the resulting challenges and limitations are discussed. Thirdly, ethical considerations, especially with regard to researcher positionality are explored, based on which I chose a multimethod-approach, utilising four different qualitative data-generating methods. These methods and their application are discussed in detail in the last part of this chapter.

4.3 Research Setting and Professional Networking

The main fieldwork for the present project was based in the capital of Greenland, Nuuk. Prior to the stay in Greenland, an initial study was conducted with members of the Greenlandic community in Denmark. All individuals identified as appertaining to the Greenlandic community or had strong links with the community for professional reasons or due to family relations. The research stay in Denmark served as a way to establish first contacts with central stakeholders including Greenlandic government officials as well as members of the Greenlandic diaspora in Denmark. These contacts evolved to be crucial gatekeepers as they helped me to build a wider research network with participants in Greenland. Furthermore, the stay in Denmark offered me the opportunity to explore my methods and gain research experience. It also helped me to become aware of potential methodological and personal challenges and limitations. An overview of all participants can be found under Table 4.2, while a more detailed list can be found in the appendices A.1 and A.2. It is also important to note that one interview took place in a cafe

in London as the person was not able to meet up during my stay in Nuuk but happened to be visiting London after my return from Greenland (P13). Another interview was conducted via Skype with a participant who is based in Sisimiut (P29).

4.3.1 The Greenlandic Diaspora in Denmark

The community of people who were born in Greenland and now live in Denmark counted about 16 370 members in 2017 [267]. This number has been rising steadily over the past years, leading to an increase of 12.6 % compared to 2014 [267]. Most Greenlanders live in the Copenhagen-area and in Northern Jutland, where Denmark's fourth biggest city, Aalborg, is located. Aalborg is also the major hub for shipments to Greenland [267]. Accordingly, I conducted interviews in both Copenhagen and Aalborg during my fieldwork in Denmark.

Not being Danish and having never lived in Denmark, I had no distinct first-hand knowledge of the perception and role of Greenland or Greenlanders in Denmark. This helped me to approach the project with an open mind and with comparatively few preconceptions. First personal impressions had nevertheless been influenced by fictional literature such as *Miss Smilla's Feeling for Snow* [268], movies like *The Idealist* [269] and the relevant academic literature, describing the everyday prejudice and marginalisation that indigenous peoples across the globe are dealing with [270]. Most of these sources drew a relatively clear image of inequality by focusing on different aspects of socio-economic marginalisation of Greenlanders and other indigenous peoples, discussing how "although the dominant population holds a self-image of egalitarianism and tolerance, behind this veil lays discrimination and racism" [270, pp.802-803].

To find exact statistics on Greenlanders living in Denmark from other institutions than *Statistics Greenland* is difficult. Greenlanders living in Greenland are registered in the same centralised system of personal identification numbers as all Danish citizens, "Det Centrale Personregister – The Danish Civil Registration System (CPR)". All Greenlanders are thus registered as permanent residents of Denmark, while the Faroe Islands use their own system [271]. This has been interpreted as an "unwillingness to . . . recognise Greenlanders as a people in their own right" [272] and is in line with Hannah's argument that "maps and censuses seem to imply a general continuum of things" [183, p.67] which he bases on Foucault's work on power-knowledge relations in terms of sovereignty.

Permanent residents of Greenland can, however, choose between a Greenlandic or a Danish passport. The differences being an additional Greenlandic translation of the text on the first page of the passport and the replacement of the term "Den Europæiske Unionen" (the European

<i>ID</i>	<i>Gender</i>	<i>Age Group</i>	<i>Sector</i>	<i>Site</i>
P1	F	25-34	Social Work	CPH
P2	F	55-64	Public Sector	CPH
P3	F	35-44	Social Work/Art/Design	CPH
P4	F	35-44	Administration	CPH
P5	F	25-34	Student	CPH
P6	M	25-34	Unemployed	CPH
P7	F	25-34	Student	CPH
P8	F	55-64	Social Work	CPH
P9	M	35-44	Engineering	CPH
P10	M	65-74	Retired	CPH
P11	F	35-44	Public Sector	AAL
P12	M	25-34	Tourism/Art/ Design	NUK
P13	M	45-54	Public Sector/IT	NUK
P14	M	35-44	Social Work	NUK
P15	M	25-34	Media	NUK
P16	M	25-34	Media	NUK
P17	F	25-34	Health Care	NUK
P18	F	25-34	Art/Culture	NUK
P19	F	25-34	Art/Culture	NUK
P20	F	25-34	Art/Media	NUK
P21	F	25-34	Health Care	NUK
P22	M	35-44	IT	NUK
P23	F	25-34	Tourism	NUK
P24	M	45-54	IT	NUK
P25	F	18-24	Administration	NUK
P26	F	45-54	Art/Design	NUK
P27	M	35-44	Administration	NUK
P28	F	25-34	Tourism	NUK
P29	F	45-54	Health Care	SIM
P30	F	35-44	Public Sector	NUK
P31	M	25-34	Engineering	NUK
P32	F	25-34	Unknown	NUK
P33	F	25-34	Art/Culture	NUK
P34	F	25-34	Student	NUK
P35	F	45-54	Retail	NUK
P36	F	25-34	Unknown	NUK
P37	F	25-34	Art/Culture	NUK
P38	M	18-24	Leisure	NUK
P39	F	25-34	Unknown	NUK
P40	F	25-34	Student	NUK
P41	F	25-34	Retail	NUK
P42	F	25-34	Student	NUK
P43	F	25-34	Unknown	NUK
P44	F	25-34	Student	NUK
P45	F	55-64	Unknown	NUK
P46	F	35-44	Student	NUK
P47	F	55-64	Retired	CPH
P48	F	35-44	Art/Education	NUK
P49	M	35-44	Public Sector	NUK
P50	F	25-34	Student	NUK
P51	M	25-34	Public Sector/Education	CPH

Table 4.2 Participant Demographics:

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Abstracted to avoid risk of identification. Abbreviations for locations: NUK=Nuuk, SIM=Sisimiut (via Skype), CPH=Copenhagen, AAL=Aalborg. ‘Unknown’ in the sector-column refers to cases where a participant’s occupation did not naturally come up in discussions with the researcher.

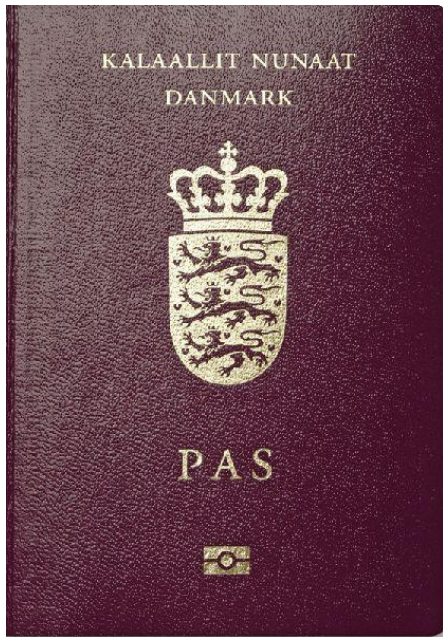


Figure 4.1: Photo of a Greenlandic version of the Danish passport which includes “Kalaallit Nunaat” (Greenland) on the cover (Photo: European Council).

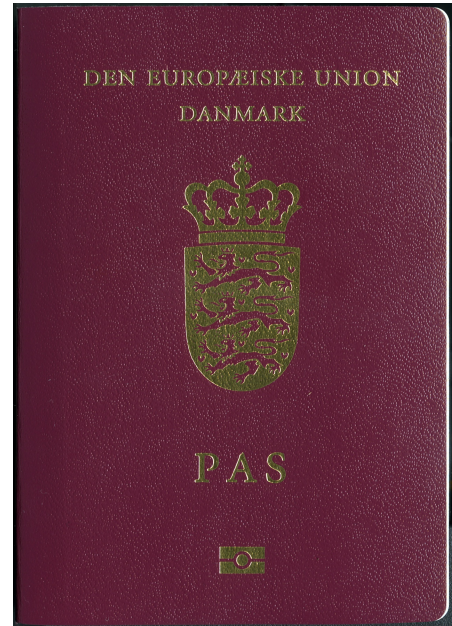


Figure 4.2: Photo of a Danish passport which includes “Den Europæiske Unionen” (the European Union) on the cover (Photo: Magnus Manske/Public Domain).

Union) with “Kalaallit Nunaat” (Greenland) on the cover. Yet, both documents are proof of Danish citizenship and therefore entail the same rights and obligations under Danish law for its owner [273]. Thus, even individuals that decide for the Greenlandic version of the Danish passport will legally count as citizens of the European Union, despite Greenland having left the European Economic Community in 1985 [274]. Faroe Islanders, by contrast, were explicitly excluded from EU-citizenship in Protocol 2 of the 1972 Accession Treaty. Greenlanders thus enjoy the right to free movement throughout the Danish Kingdom and the European Union [Article 20 275, 276, Protocol 2].

Hence, there are no formal limitations for Greenlanders regarding relocation within the EU and especially within the Kingdom of Denmark. However, as Greenlanders are neither a recognised minority group within the Kingdom, nor count as immigrants, the Danish state does not offer them the same access to integration services and support as members of the two aforementioned groups [277]. This might have challenging implications for the integration process of Greenlanders in Denmark. Several reports and studies indicate such everyday challenges which

materialise in form of various economic and social issues [154, 278, 279].

A report from GoG’s Economic Council discusses the different reasons for the emigration of Greenlanders to Denmark: education, employment, retirement, and other social reasons are listed as motivational factors that drive the relocation [280]. While many young Greenlanders move in order to attend a boarding school (“*efterskole*”), aimed at 14-18 year old individuals, or one of Denmark’s universities, only 35 % of 25 – 60 year-old Greenlanders in Denmark were in employment in 2015 compared to 80 % of Danes in the same age group [278, 280]. The average salary of a Greenlander in Denmark who is between the ages of 18 – 60 years corresponds to 60 % of the average salary of a Danish-born person [278, 280]. Such figures suggest that many members of the Greenlandic community still face marginalisation and stigmatisation in modern-day Denmark [278, 280]. Since the 1960s, the percentage of the generally more educated women who migrate to Denmark has been increasing [281–284]. More than half of the population in Greenland today is male; in fact, only in the age-group 50 and above is there a small majority of women [104, 285]. Accordingly, in 2011, 58 % of Greenlandic-born individuals living in Denmark were female [278] (as in [5, p.2]). The reasons for the majority of women moving to Denmark are still debated, though a report from the Danish Council for the Socially Vulnerable names relationships, the search for a better life, escape from domestic abuse in Greenland, homelessness and “coincidence” as the five main reasons for emigration of Greenlandic women to Denmark [90]. The report focuses on the different issues that many Greenlandic women face in Denmark, including economic problems, substance abuse, prostitution but also difficulties in receiving support as well as the experience of being treated as “inferior” [90]. These findings, which I encountered both in conjunction with my preparations and through first interviews during my initial study in Denmark, awoke my interest in further investigating the implications of Greenland’s digitalisation on changing gender roles with a focus on women’s involvement in the process. As a consequence, a majority of my interviews was conducted with women.

Such issues are addressed by institutions such as the Greenlandic Houses (*Kalaallit Illu-utaat/Det Grønlandske Hus*) through their extensive integration and support efforts. With the opening of the first Greenlandic House in Copenhagen in 1974, specific meeting points for Greenlanders in Denmark have been established [286]. The Greenlandic Houses can today be found in four major Danish cities and offer open meeting spaces, cultural events as well as support from social workers in various matters for Greenlanders living in Denmark.¹ Due to

¹Each Greenlandic House is an independent institution run by a board. Funding for each house originates predominantly from the GoG and in part from Danish public sources, including subsidies from both state and municipal authorities [287].

the welcoming atmosphere of the Greenlandic House in Copenhagen, including its associated arts and crafts workshop (Qiperoq), these venues became the ideal places for me to meet and talk to participants. Consequently, most of the interviews which framed this first study were conducted in the Greenlandic House in Copenhagen. Being open only on weekdays until 4pm and given that many people who would visit the Greenlandic Houses belonged to the group of Greenlanders who face difficulties had an influence on the data collected.² Other meetings with participants who were in employment or who did not work at the Greenlandic House took place in offices or cafes in Copenhagen and Aalborg.

4.3.2 Nuuk – the Greenlandic Capital

Nuuk is the Greenlandic capital and had about 18 298 inhabitants in October 2018 [4]. All major GoG bodies and other public institutions are located in Nuuk, such as the public television channel *Kalallit Nunaata Radioa – Greenland’s Public Broadcasting Service (KNR)*, the Greenlandic University *Iisimatusarfik* and one of the four Greenlandic high schools. Greenland’s National Museum and one of the two Greenlandic Art Museums can be found in Nuuk, alongside the cultural centre *Katuaq*. Nuuk and Sermersooq Commune also have a higher education level compared to other areas in Greenland [288]. Moreover, the country’s largest harbour can be found in Nuuk which has a central role for Greenlandic trade and the local economy [289].

Over the past decades, migration from small settlements to bigger towns and especially to Nuuk has become evident [290]. The town has consequently not only been growing in population but also in size with the construction of a new part of town to the East of the centre, called *Qinngorput* which translates to “the bottom of our fjord”. Nevertheless, Nuuk’s small airport has limited to date the capital’s accessibility by air as well as its inhabitants’ mobility. Moreover, there are no roads connecting Nuuk to other places in Greenland. The construction of a new, intercontinental airport in Nuuk has therefore been a major topic since the election campaign of 2018, offering Nuuk new potential for economic development [291]. The limited mobility of Nuuk’s inhabitants became very clear during my stay there as the airport was closed for a few days due to a storm, allowing (almost) no people or goods to enter or leave the town.

Despite its small size and these everyday mobility challenges, Nuuk is a young, modern and vibrant capital city. A symbiosis of old and new architecture combines Scandinavian wooden houses from colonial times with modern buildings made of steel and glass (see Figure 4.3).

²The data of this work has been uploaded to the following data repository: <https://doi.org/10.6084/m9.figshare.c.5004569> (restricted access).

Colourful elements contrast the cityscape against the white nature that surrounds Nuuk during the cold months. Every week, there are several public events taking place and young families are particularly visible and present in the public sphere. As a Greenlandic *hub*, most people that I spoke to were not born and raised in Nuuk but had moved here to finish their education or to start a career. This allowed me to gain insights also from people who had lived in other parts of the country (see Figure 6.2). However, this also meant that education was a high priority for a number of my participants as many of them had left their families behind for better education and job opportunities. Accordingly, almost everyone spoke excellent English and was in employment or studying. I was often told, especially by tourists, that Nuuk was not the “real Greenland” and quickly understood that they were referring to more remote, smaller and less developed Greenlandic settlements which seemed to represent a common idea of the “real Greenland”, in particular among foreigners. Even though views from inhabitants of Nuuk might differ from views of people in other, more remote places within the country, I considered them not to be less “real”, but noted that they offer just one part of the story. The findings of this thesis thus represent primarily the experiences of the inhabitants of Greenland’s capital who are, on average, better educated and have a higher income and better access to digital connectivity than in the more rural parts of the country.

Meeting places like the cultural centre but also a community centre with the name *Illorput* (“our house”) in a part of town called *Nuussuaq* offered the opportunity to meet a relatively wide array of individuals with different backgrounds. The details of the participant recruitment are discussed in more detail later and can also be found in the two appendices A.1 and A.2 as well as in Table 4.2.

4.3.3 Digital Connectivity: Fieldwork Setting in Nuuk and Denmark

As all conversations with participants revolved around questions of Internet access and its use, it is important to note that the study in Denmark and the fieldwork in Greenland differed from each other with regard to the overall accessibility of Internet and digital services. Denmark ranked highest in the 2018 Digital Economy and Society Index (DESI) which “tracks the evolution of EU member states in digital competitiveness” by looking at the presence/functioning of the following five indicators: (1) Connectivity, (2) Human Capital Digital Skills, (3) Use of Internet Services by Citizens, (4) Integration of Digital Technology by Businesses, (5) Digital Public Services [292].

Additionally, Denmark also came first in the 2018 United Nations e-government survey [293].



Figure 4.3: Most of GoG’s offices are located in the modern tower building which can be seen in the background of this picture. Nuuk’s cityscape combines both modern and historic architectural elements (author’s own image, May 2018).

All Greenlandic Houses in Denmark offer free and fast Wi-Fi access to its visitors and several participants mentioned that they had a low-priced Internet flat-rate for both their mobile digital devices and at home. Even though most participants I interviewed in Denmark had previously lived in Greenland, the memories of lacking, slow or expensive digital connectivity in Greenland seemed to have faded and were less present in the conversations conducted in Denmark. However, participants who had recently visited Greenland complained about having to change everyday habits and explained how difficult it was to re-adapt to Greenlandic standards due to the high Internet prices in Greenland.

As mentioned in Chapter Two, all of Nuuk has access to a stable Internet connection at home through the Internet cable Greenland Connect. However, the first flat rate was only introduced at the end of 2017. The prices for mobile Internet remain high and the only public space that offers free Wi-Fi access is the public library in the town centre. Accordingly, topics related to the accessibility of stable Internet were much more present in the public debate as well as in my interviews.

4.4 Ontology

During a workshop on “Community-Based Methods for Sustainable Development in the North” at Umeå University (Sweden) in June 2017, I learned about the use and importance of *Standpoint Theory* [30] when conducting research in the Arctic³ Adopting a *Decolonising Standpoint* and thus a critical stance towards my own positionality and normative assumptions within the project appeared central to my aforementioned goal of building the project on co-produced knowledge through mutual learning, aiming to further contribute to the decolonisation of academia and the understanding of the challenges and (security) concerns as well as the opportunities that Greenlanders experience through the advancement of digital connectivity [29, pp.141-155]. However, I had certain doubts as to whether any theory would put me, a white, privileged PhD student, in a different position as that of my predecessors who had gone on field trips to the Arctic over the last centuries, leaving behind a negative legacy due to unethically conducted research projects pervaded by racist and discriminating practices and ideologies [297]. Nevertheless, the workshop and my subsequent critical reflections and conversations with my supervisors helped me choose methods and ontological frameworks that should place the participants’ everyday experiences as well as their inherent values, ideas and views at the heart of the project.

Over the first couple of days in Nuuk, I became aware of the presence of many highly educated Danes and other (Northern) Europeans or North-Americans. Some were staying for a limited amount of time to conduct research just like me; others had been living here for a long time and again another group was working there as *experts* for a couple of years or months, helping to implement solutions that had already been successfully established in Denmark or elsewhere. Many were working in understaffed yet vital sectors such as health care, technology or education. Of course, I also met as many equally well educated Greenlanders in central positions in the private and public sector. However, such observations combined

³Various terms are used to describe the geographic area around the North Pole, including the terms *Arctic*, (*European*) *High North* or just *the North*. The exact definition of these terms is widely disputed as it can be interpreted in political, geographical or cultural/historical terms. In this work, the following reasoning underlies the use of the above-mentioned terminology: When talking about the “North”, the Nordics or *Norden* in Danish/Swedish/Norwegian, one usually refers to Scandinavia and its neighbouring/historically associated countries: Finland, Iceland and Greenland as well as the Faroe Island and Åland. The Nordic countries’ political body is the Nordic Council [294]. The term “High North” was framed first and foremost by Norwegian authorities and the 2006 Norwegian *High North Strategy* [295]. In this policy document, the Norwegian government referred *inter alia* to membership in the “Barents Cooperation” as one defining factor. Thus, according to the Norwegian strategy, the High North would encompass the Northern areas of Norway, Sweden, Finland and Russia [295, p.6]. A political definition will also be employed regarding the term “Arctic”, including the Northern areas of the Arctic Council’s member states including Russia, Canada, USA, Sweden, Norway, Denmark (through Greenland), Finland and Iceland [296].

with first findings from my research stay in Denmark, my impression that *decolonisation* was not a completed endeavour in Greenland consolidated. The inner turmoil on how to combine responsible research with Greenland's historical reality in my research design was also described by the Swedish journalist Stefan Jonsson who worked with the critically acclaimed Greenlandic artist Pia Arke: "People like me, white Europeans [...] are preconditioned to narrate the Arctic by relying on a very limited set of generic modalities [...] for it would [amount] to just another colonial narrative, just another story about the male subject of modernity conquering nature, speaking for others and placing himself at the centre of the universe; just another case of Western humanism, or rather a caricature of humanism, corrupted and deranged" [89, pp.227-228].

Such reflections and my self-conscious presence as a researcher in Greenland reassured me, at least, regarding my choice of methods, which will be outlined in one of the following sections. Combining semi-structured interviews with participatory mappings and ethnographic observations aimed to place the participants, their views and stories at the centre of my research. My goal became to be able to provide my participants with an additional platform to voice their concerns and visions and to get a genuine understanding of the effects of increasing Internet connectivity and growing digital networks on identity-formation in Greenland. Trying to advance a co-produced narrative on a future-oriented topic might contribute to the avoidance of what had been described by Jonsson. Being aware of Inuit ontology and the impact it has had on modern Greenland, basic assumptions about reality, existence and truth, stretching beyond the limits of Western and Eurocentric worldviews, allowed me to critically engage with the role that notions of Arctic Orientalism have played in the construction of Greenland's representation in Western (academic) literature [298].

Margaret Kovach [29] argues that most academic methodological concepts have emerged from Western traditions and are therefore inherently marked by Western intellectual culture. With her work on indigenous methodologies, she has become one of the major advocates of indigenous scholarship. In her work, she also stresses the boundaries of understanding for a non-indigenous researcher engaging with the topic area. She highlights the lacking knowledge of the distinctiveness of indigenous/tribal languages as a first major difficulty for Western researchers to gain profound insights and understanding [29, pp.56-74]. Kovach thus comes to the conclusion that "indigenous methodologies and qualitative research at best form an insider/outsider relationship" [29, pp.32]. Even though a sobering note, this insight helped me to better recognise and understand some of the challenges I encountered while in the field

and that the aim to acknowledge and engage with different ontologies would not always and necessarily mean to fully comprehend them. Accordingly, the adoption of a *flat ontology* would account for this “multiplicity of complex relations and singularities” by assigning all objects, whether imagined or of physical presence, the same relevance [299, p.422].

4.4.1 Inuit Ontology and the Digital

Much indigenous ontology involves animistic philosophy that “attests that the human entity is but one clan group within its relational family” [29, p.34]. Various indigenous peoples thus have a relational, holistic approach to existence “honouring the primacy of direct experience, interconnectedness, relationship, holism, quality and value” [300]. Referring to the work of Mary Graham [301], scholars including Schultz have highlighted the central role of *place* in shaping indigenous and aboriginal ontologies: “... being, belonging and connectedness all arise out of a body’s locality in land: multiple places — every place has a law [...] So, multiple truths [emerge] from each place” [301, p.82]. The author further interrogates how the creation of virtual places affects these understandings and ontological cultures, debating whether they can emerge as a bridging “reconciliation tool” [302, p.82] or as spaces of “technological colonisation of imaginations” [302, p.82]. More research is needed in this field and the scope of this work will not allow to answer questions on the conceptualisation of digital spheres in Inuit ontology. Yet, understanding how a lifeworld that stands in such close contact with its immediate human and non-human environment as the Greenlandic society is affected by the advancement of a socio-technical system that aims to “produce more universalising truth unbound by place” [302] resonates with the questions raised by the present research. Gaining insights on the ways in which advancing digitalisation is shaping everyday experiences in Greenland as well as the online representation thereof might hence also shed further light on the insecurities and opportunities that may arise more globally as digital solutions corrode certain truths while building others.

4.5 Epistemology

Exploring the role of digital information sharing in modern Greenlandic identity-building and acknowledging indigenous ontologies, the interpretivist *Verstehen* concept emerged as a suitable choice when selecting an appropriate epistemology for the project. Focusing on the “interpretation of meaning through empathetic understanding and pattern recognition” (as seen in [165]) relates to and respects the Inuit tradition of orality as a central element in knowledge creation



Figure 4.4: This statue of Sassuma Arnaa, the goddess of the sea and its animals, can be found in Nuuk's old harbour (author's own image, June 2018).

and exchange [73]. In Greenland, language has served as a central medium for a collective understanding of the self and the transport of knowledge [303]. Trying first and foremost to *verstehen* rather than *erklären* the observed tendencies also reflects the researcher's positionality in the specific research setting and the value of human reciprocity that assumes great value in extreme environments as in the Arctic [73]. However, as will also be outlined as a limitation in the following section, it is important to note here that the understanding and interpretation of the observed through the individual mind of the researcher comes with certain restraints. It might entail the negligence of the above-mentioned more-than-human agency of other elements such as the Internet cable *Greenland Connect* or local area networks as knowledge is situated in an assemblage including elements of human and non-human agency that influence ways of thinking [304].

4.6 Methodology

"All research is appropriation" [305, p. 239]. Rundstrom and Deur criticised with this remark the power-imbalance between researcher and participant that undermine many post-colonial research settings. My intention was to limit the applicability of this statement to my research activities in Greenland and Denmark as much as possible. While the described ontological and epistemological considerations contributed towards this goal, it quickly became apparent that the choice of an adequate methodology would make the greatest difference for the interaction

with my participants. A grounded-theory-informed approach should thereby help me to avoid entering the field with a fixed set of preformed ideas that might (mis-)guide my observations and developing understanding [306, 307]. Additionally, fore-judging perceptions and ideas would erode two of the corner stones of my research design: the co-production of knowledge and joint learning with the community. However, after approximately one year of working on my literature review and five years of studying International Relations as well as European and Arctic politics, I was aware that it was practically impossible to enter the field with a “tabula rasa”. Being critically aware of concepts I had engaged with prior to my ethnographic field trip became consequently as important as the welcoming of new thoughts. These new impressions or ideas could either be introduced by the participants themselves or would emerge at a later stage from intense studies of the collected data. Either way, this approach, inspired by grounded theory, would require a high degree of flexibility and active listening to facilitate and enable joint learning [308, pp.41-42]. Letting the participants elaborate freely on the points most relevant to them, the chosen methodology aimed to allow for co-ownership and would draw my attention to the communities’ most crucial thoughts and concerns.

Utilising a deductive approach, as opposed to my chosen inductive approach, hence did not only appear difficult but also counterproductive as it would force the narratives and insights from my Greenlandic participants directly into the logic and argumentation of a pre-formed Western intellectual ideology. Moreover, the lack of literature on digital connectivity and identity formation in the specific setting of the Arctic might entail flawed *a priori* assumptions [307]. Consequently, a qualitative methodology with a mainly inductive, ethnographically informed approach was chosen. The ethnographic element was decisive as it had become clear that I would only get a clear grasp of the current situation in Greenland’s digitalisation process once I was amidst the people and structures I was writing about [309].

Accordingly, I chose a multimethod-approach that would also give me the possibility to engage in a respectful and ethically sound way with different societal groups [310]. Moreover, triangulating interviews with participant observations and participatory focus groups could help me to adapt to potentially unexpected settings in the field and to look at the situation from various angles. Linking the methodology to indigenous approaches, the process of data collection itself would be assigned comparable value as the content of the interviews and participatory focus groups in order to contextualise the findings [29].

As a consequence, all audio-recorded material and notes for this project were transcribed and annotated by myself, which helped to relive the data-collection process and to internalise

and reflect on the content with some temporal, geographical and emotional distance. Some notes with regard to emerging themes were made during the transcription process. The data was later coded using the qualitative data analysis software, NVivo11. The details of the coding and analysis process are described in more detail in a following section.

4.6.1 Methodological Limitations and Challenges

A number of limitations and challenges with regard to the chosen methodology came to the fore during the design-process but mainly over the course of my fieldwork.

1. **Time and Ethnography:** Under the title “What Ethnographers Do”, Hammersley and Atkinson describe the traditional setting of ethnographic work: “...ethnography usually involves the researcher participating, overtly or covertly, in people’s daily lives for an extended period of time ...” [309, p.3]. Hence, spending one month in Greenland and one week in Denmark did not provide the framework to conduct a comprehensive ethnographic study, as it did not offer me the possibility to collect long-term, in-depth observations through organically grown relations. As I was staying in a hostel with other foreigners and met my participants mainly in public spaces, I might have missed components of everyday life in Greenland that are difficult to grasp after short encounters in relatively busy public places. Nevertheless, I deemed adopting an underlying ethnographic-approach of central importance to my fieldwork as observations in everyday settings and direct, natural contact with the participants is a necessary foundation to conduct collaborative and inductive research [307].
2. **Language and Access:** Not being able to speak Greenlandic or to pay an interpreter limited my access to people who do not speak English in Nuuk. As it was easier to establish initial contact with younger, English-speaking Greenlanders, my network would later develop more easily within those circles. This snowball-effect first got underway after the first one to two weeks. The remaining weeks were enough to set up and conduct the interviews and focus groups but it would have been challenging to initiate further recruitment in a completely different part of Nuuk’s social groups at the same time. This consequently narrowed my sample and excluded mainly elderly and less educated people. Similarly, my sample in Denmark was restricted as I had little means to gain access to Greenlanders who do not visit public meeting places such as the Greenlandic Houses. Consequently, it was mainly elderly or unemployed people or social workers that

I got the opportunity to interview in Copenhagen. As many of those present at the Greenlandic Houses did not speak English, I could only engage with a limited group that is not fully representative of the entire Greenlandic community in Denmark. However, being able to speak Swedish and understand and read Danish helped on various occasions. For instance, it allowed me to access sources written in Danish such as the Greenlandic newspaper *Sermitsiaq*.AG. Participants also understood that they could switch to Danish for certain words or phrases and I would still be able to follow them.⁴

3. **Definitions:** In my Information Sheet I state that my aim is to interview Greenlanders in Greenland and Denmark. But who is a “Greenlander”? A phrase that seemed very simple when I wrote it in my small PhD office, presented me with the quintessence of the Greenlandic identity struggle in the field. People with Danish parents who grew up in Greenland, Greenlanders who grew up in Denmark, participants from Thailand who speak Greenlandic and so forth would ask me whether they counted as “Greenlandic” upon reading my Information Sheet. This was an aspect that I did not consider enough in advance but I decided that it was up to the person to decide whether they identified as Greenlandic or not, irrespective of the details of their ethnic origin and their language proficiencies. Also individuals who do not necessarily identify as Greenlandic but who have central roles within Greenlandic institutions that work on Greenlandic digitisation or who have strong bonds to the country through family-ties or lived experiences were able to participate.

Throughout this work, those who self-identify as Greenlandic are occasionally also referred to as “indigenous”. This decision is based on extensive considerations. The term and concept “indigenous” is legally and politically debated [311, 312]. Aiming to evade any divisive discourse, my initial intention was to limit terminology related to ethnicity and indigeneity to a minimum. Yet, during my literature studies, I became aware that the Greenlanders’ status as an indigenous people played a decisive role in their claim to self-determination under international law [313, 314]. Moreover, during my fieldwork in Nuuk, I realised that many individuals perceived indigeneity to be an important part and marker of their cultural identity. This was highlighted through continuous comparisons and references to other indigenous peoples around the world and as a way to directly

⁴In this context, it is also important to note that any sources which were originally in Danish, whether primary or secondary, have been translated by myself. I received help from a friend to translate my Information Sheet and my Consent Form into Danish. Moreover, one interview was conducted in German and also translated by myself.

address issues that might result from their status as “indigenous Greenlanders” within the Danish Realm in general and within Greenland in particular. While not all participants might identify as “indigenous”, I decided that the engagement with indigenous ontology and epistemology would help me gain a better understanding of the broader, cultural context and to acknowledge indigenous traditions and understandings with regard to the production of knowledge. It might even help to address potential Arctic Orientalism that might also extend to and reproduce itself in the digital sphere.

4. **Interpretivism and Reflexivity:** As outlined in the previous sections, my aim is to consider and acknowledge indigenous ontological, epistemological and methodological approaches. However, given my own background and the choice of an interpretivist analysis would mean that all observations would not only be processed but also analysed and interpreted through my mind, which might leave little impact to the considerations made in the first steps of the research design. This is explored more thoroughly in the following section.
5. **Policy Analysis:** In order to critically evaluate the state, impact and issues of digitalisation on a population level, I deemed it necessary to position the statements and experiences of my participants against the backdrop of official Greenlandic digitalisation policies. Accordingly, the first of the three analysis chapters of the present work (Chapter Five) discusses GoG’s past and present political strategies towards the extension of digital connectivity in Greenland. This analysis is based on a post-empiricist participatory policy analysis approach that weaves in relevant voices from both policy makers, citizens and companies [315, 316]. Yet, it was given less methodological consideration as it mainly serves to contextualise the findings presented in Chapter Six and Seven within the broader policy context of Greenlandic digitalisation.
6. **The Fast Pace of Change in Greenland’s Digitalisation:** As a priority of GoG and TELE-POST, the advancement of digital infrastructure and stable connectivity throughout the country unwound at a pace that would, at times, overtake the pace of my research and writing. Findings and understandings of the current state of digital connectivity in Greenland were hence constantly changing and needed to be updated and adapted accordingly.

4.7 Ethics, Responsible Research and Innovation

Over the past decades, ethical standards have been gaining in importance in academia and have been integrated into the foundations of most research institutions [317]. Criticisms regarding a lack of ethical review first attracted greater attention within the bio-medical sciences. Concerns regarding possible impacts beyond physical harm that research can inflict on its participants consequently reached the other academic disciplines [318, 319]. Underlying policies of various EU funded programmes further coined the term *Responsible Research and Innovation* over the last decade, framing central debates around ethical research in the digital age. These policies highlight the importance of the ethical evaluation of potentially lasting effects that socio-technical developments and innovation might entail along with the implicit responsibility for but also the societal expectations of the respective researcher [320].

My university’s ethics board aims to comply in their actions with the British *Concordat to Support Research Integrity* to ensure that research is undertaken “to the highest level of integrity and ethical responsibility” [321, 322]. Before my stay in Denmark and Greenland, I hence filled out Royal Holloway’s *Ethics Self-Assessment Form*. The questionnaire focused at the time on potential threats to human individuals or groups, animals, the environment or companies. As I was working with people, the form further asked whether I would work with minors or vulnerable people or if people might participate unknowingly in my research. I answered all of these questions with a “No” and was therefore able to self-certify. The only question which caused some hesitation was the question asking about the vulnerability of my participants. Given the history of colonialism in Greenland and having read about the living conditions of some Greenlanders in Denmark, I was uncertain whether I should tick this box. After some further consideration, I came to the conclusion that Nuuk is a modern town with living conditions just like in Copenhagen or London. Marking its inhabitants as vulnerable would be discriminatory.

I set up both my *Information Sheet* as well as an *Informed Consent Form* (see the appendices B.1 and B.1) with consideration and care. With support from a friend, both documents were translated into Danish and I kept both versions with me while in Denmark and Greenland. Searching for examples on the Internet, I noticed the varying degrees of detail of the available templates. I decided to highlight in my Information Sheet and Consent Form that participation would be voluntary and anonymous, without any compulsion or risk for health and safety. In a small society as Greenland, it appeared that anonymity was highly valued – even if hard to

achieve. Having uploaded these two additional documents and having replied to all questions to the best of my knowledge, I eventually self-certified my ethical review before going on the respective field trip.

Despite the institutional guidance and control, the complexity of the individual ethical considerations should not be underestimated. This applies especially in light of an increasing bureaucratisation of the ethical approval: “the danger is that the rubber stamp of an ethical committee can both bureaucratised ethical reflection and also lull us into forgetting the need to take responsibility for thinking ethically on a day-to-day basis” [323]. Established bureaucratic guidelines, research principles and the corresponding paperwork constitute necessary protection mechanisms for both the researcher and participants as well as for all related institutions. These ethical rationalisations are thus often in the best (legal) interest of all parties involved as they provide for control mechanisms of cooperation in which a balance of power should prevail. Nevertheless, it should be born in mind, that it is the people within these frameworks who give it a meaning through interpretation and implementation, who may circumvent or foster the underlying ideas and principles. It remains the researcher’s responsibility to fill the ethical “shell” with meaning and value. The following two sections thus take a closer look at these personalised aspects of research ethics.

4.7.1 Researcher Positionality and Standpoint Theory

In the context of addressing my own research positionality, I would firstly like to point out that I have not personally worked with any indigenous community as a researcher before starting my PhD, nor do I consider myself an indigenous person. Being aware of my positionality in relation to my research, I base the following reflections solely on my understanding of the relevant (academic) literature as well as on personal observations and experiences. These observations have been collected from my perspective as a female, under-30, white European PhD-student who does not speak any Greenlandic but can understand and read Danish, mainly thanks to knowledge of another Scandinavian language, Swedish. Trying to establish a research design that is as comprehensive and as inclusive as possible, I am aware of the fact that I will most likely not be able to completely detach my views from my own cultural background and perceptions. This demands a highly reflexive and critical standpoint so as to avoid any kind of ethno-/Euro-centrism and as protection for my participants.

Contemporary Western literature on post-colonial methodologies has been marked increasingly by the relationship between self-categorisation and the notion of collective guilt about the

enduring legacies of colonialism [324, 325]. As the critical accounting of the Arctic's colonial past progresses, the conscious self-identification as “non-indigenous” by Western researchers has gained in importance. In line with Mackie, Maitner and Smith's Intergroup Emotions Theory [326], the self-categorised individual can consequently perceive collective emotions, which “arise from an individual's shared identity with a particular social group” [326, p.251]. Assuming the inconvenient association of one's self with the group of the perpetrators in a post-colonial setting has contributed to the evolution of the so-called *Decolonising Standpoint* within Western academia.

Accepting perceptions of guilt as a collective has historically and scientifically been proven to entail mind-sets and actions that tend to promote reconciliation with the out-group [326]. Self-categorisation, together with harm-responsibility and harm-illegitimacy thus constitute important stages of processing trauma, such as the one inflicted upon the Arctic's indigenous people by enduring colonialism [327]. When working in a post-colonial society as a Western researcher, one should consequently not only be aware of the external influences described above that might serve as vehicles of imbalanced power relations. One should also consider one's own personal standing. Reflections on researcher positionality can thereby become a path towards a more inclusive identification of local problems [30].

Through the lens of Standpoint Theory, Sehlin McNeil [30] stresses the importance of adopting a decolonising methodology based on collaboration, reciprocal trust and shared learning when working with communities in the North. The underlying Decolonising Standpoint helps the researcher to acknowledge “the many negative impacts of research on indigenous peoples and cultures” and to find a way to “shift control from the Western academy to the community” [30, pp.122-124]. By acknowledging indigenous epistemologies and ontologies as part of an indigenous standpoint, one avoids what Marie Battiste [328] described as *cognitive imperialism*: “a form of cognitive manipulation used to disclaim other knowledge bases and values” [328, p.198]. Hence, the understanding of indigenous knowledge systems becomes central before intending to apply a decolonising methodology. Questioning and distancing oneself from one's own, often unconsciously adapted worldviews challenges the researcher and puts them into the role of a learner rather than the academic ‘expert’.

However, attempts at inclusion and a half-hearted confrontation with the above-mentioned collective guilt may also wear one of the many faces of post-colonialism. This thought was brought forward by a presentation at the Ninth International Congress of Arctic Social Science in Umeå on “The Colonial Inclusion of Indigeneity”, given by Lindroth and Sinevaara-Niskanen

[95]. This presentation raised the issue of continuous colonialism within the bodies of international law and politics and described how political exclusion continued through seemingly benevolent and inclusive measures that actually diminish indigenous peoples' influence by placing them into solely consultative roles. Accordingly, the significance of assigning an active role to the indigenous participants in one's research design becomes apparent. The consequential methodological focus on the co-production of knowledge thus motivated the choice and combination of research methods outlined below, encouraging a process of mutual learning between participants and researcher. Past HCI – and digital civics research in particular, have promoted similar approaches in order to foster the development and design of more inclusive technological solutions, e.g. [329].

4.7.2 Personal Challenges

Despite thorough ethical considerations both prior to the fieldwork in Denmark and the fieldwork in Nuuk, certain unforeseen, sometimes challenging situations arose. The following section summarises my reflections on the most significant ones:

1. **Time and Trust:** The fact that I only spent one week in Denmark and one month in Greenland has already been addressed in the methodology section where I discussed whether one month in a country would suffice to conduct ethnographic research. However, whether one's research is labelled as "ethnographic" or not; working with people and trying to learn more about their daily struggles, concerns and hopes entails a set of potential inter-personal challenges. The willingness to share meaningful insights is often based on a trusting relationship. In order to gain this trust, gradual adaptation to the local customs and habits has been identified as one central element in the context of ethnographic(ally informed) research [29, 309]. Given the limited time-frame, I tried to quickly absorb as much of the local atmosphere as possible. In this context, I learned about the "value of pure sociability" as described by Hammersley and Atkinson [309, p.81]. Despite not having the opportunity to slowly build up relations over the course of weeks or even months or years, I always tried to first interact with potential participants on a few occasions in a more casual setting, engaging in everyday topics to "establish [my] identity of a 'normal', 'regular' and 'decent' person" [309, p.70].

Another aspect that helped me to circumvent the challenges that resulted from the relatively short length of my stay appeared to be the tightly knit social networks in Nuuk.

After the first weeks, I was able to identify some of the different social circles of Nuuk and some people would have already heard about me or would be able to associate me with my gatekeepers. This would, ideally, have an endorsing effect and contributed to an increasingly easy recruitment process as well as perceivable higher levels of trust.

Past research has associated the concept of trust in interpersonal relations with the perceived vulnerability of the confider [330, 331]. (Perceived) vulnerability can, depending on the respective setting, take many forms. As interviews and focus groups were always conducted in safe environments and as I pose little physical threat to my participants, the biggest perceived risk seemed to revolve around sharing “intimate information” and questions on anonymity. Many participants initially expressed certain insecurities through reluctant body language or critical questions. Fundamental issues like “Why me?”, “Why Greenland?”, “Why you?”, “Are you asking very private things?” were raised especially during the interviews in Denmark and at the beginning of the fieldwork in Nuuk but decreased gradually over time, partly also as I would anticipate those concerns. In line with the most commonly expressed concerns, most interviewees would initially enter into risk-avoiding behaviour by trying to give only “right answers”, which seemed to be adapted to the content they thought I was looking for and were often neutral and uncritical. Accordingly, one of my interview partners stated: “People are much more *autoritetstro*, they believe in authorities, especially the older generation, maybe sometimes too much.” (P11)

Interestingly, however, after I had posed the last interview questions, most interviewees would stay to share their more personal and critical views on the topic. This difference became even more apparent when a dictaphone was used. As soon as the recording device was turned off, the interviewees would adopt a more relaxed posture, their way of speaking would change and the content would become more personal and reflective – as many researchers have noted before me [332]. I tried to adapt by only using the dictaphone with individuals who seemed very confident and eager to share critical views from the beginning while I would only take notes with more timid, introverted participants.

2. **Outsider/Insider:** In Denmark as well as in Nuuk, I felt very welcomed and was overwhelmed by the friendly and honest local support that I had not experienced in that way before. Most people would initially assume that I was Danish. Switching demonstratively to English in conversations would identify me as a non-Dane and generally had a positive impact: “I thought you were Danish – cool!” (P38). Once it had been established that

I was not Danish, participants generally felt more comfortable or even motivated to talk about experiences of discrimination in Denmark or in interaction with Danish institutions or individuals. It thus became clear that my own nationality impacted on the course of conversation with several participants. In the context of Greenland's politically sensitive post-colonial research setting, being a *complete* outsider might hence have allowed to gain a different perspective of Greenlanders' experience of discrimination and marginalisation.

When observing or participating in public life, I would always and immediately be identified as a foreigner and would 'stay under observation'. Only when attending a public event with my Greenlandic friends, I felt more accepted. I also witnessed the difficulties of my Greenlandic gatekeepers who only spoke Danish. Their respective friends would occasionally tease them and people who addressed them in Greenlandic, would express a certain disappointment when they realised that they had to switch to Danish. These minor language and identity-struggles would run like a red thread through my experiences in Nuuk and would sometimes make it clear that I was not always the only outsider in Nuuk. How these language difference affect the usage of digital technologies in Greenland are addressed in more detail in Chapter Seven.

Being generally an obvious stranger would, however, not always help me to gain trust and access. The issues that come with this position during my fieldwork have been widely discussed in the academic literature through descriptions of feelings of loneliness, doubting one's own legitimacy and general access issues [333, 334]. The most difficult part for me was to remind myself that my research might eventually have a positive impact on Greenland and its inhabitants. As Nuuk sees a considerable amount of researchers, academics and highly skilled European professionals passing through every year, I felt like just another white person meaning "to do good" while the country aims to free itself from old dependencies and power-imbalances. However, I also became aware that the insider/outsider question is not always as binary as it might appear. While I was a clear outsider to the Greenlandic society overall, there could always be another *intersection* with a participant. I realised, for instance, that ethnicity would fade from the spotlight when another woman would talk to me about gender-related issues, a setting that would temporarily remove me from my perceived outsidership.

4.8 Participant Recruitment

The recruitment process in both Greenland and Denmark worked according to two different strategies: the more conventional purposive opportunity sampling as well as virtual snowball sampling using mainly Instagram and Facebook (messenger) [335]. The latter naturally evolved as the most effective way to reach out to potential participants for reasons explored in more detail later. Government officials were contacted directly via their publicly accessible e-mail addresses and were chosen based on their relevance and expertise in the field of digitalisation. I decided to include insights from policy makers to gain a better understanding of the political agenda as well as the politicians' concerns and vision that had been driving Greenland's digitalisation efforts. All members of GoG who were contacted were highly responsive and very eager to share their perspective as were most participants I encountered personally or whom I contacted online. The reasons behind this enthusiasm are diverse and likely to vary from case to case. Yet, I felt that the rather future-oriented outlook of the project contributed to the number of positive responses. Not focusing on controversial or highly politicised topics such as Uranium mining or political independence but on everyday usage of digital technologies, most participants felt comfortable to contribute their personal experiences.

The recruitment of Greenlanders not working for the government in Denmark or in Nuuk initially emerged as challenging. Identified gatekeepers such as Information Officers at the Greenlandic Houses or other NGOs who engage with the (Greenlandic) community in Nuuk and Denmark kindly disseminated the Information Sheet through relevant online and offline channels such as notice boards and Facebook groups. However, these friendly efforts remained without any success. Uncertainty regarding the recruitment process thus emerged from the elusive barriers prior to the arrival in the field. In the process, I eventually had to come to the conclusion that the classical channels for participant recruitment were not working. This perception was later confirmed by one of the employees at the Greenlandic House in Copenhagen, who said that many other researchers had contacted her in the past with similar requests. She said that the high number of requests and the fact that the researcher might not be able to speak Danish/Greenlandic contributed to the low response-rate. She also added that making appointments for the non-immediate future was less anchored in the Greenlandic culture as the organisation of everyday life in Greenland was extremely weather-dependent. She therefore highlighted that being present to establish personal and immediate contact was one of the most central aspects for the recruitment process.

In case of the interactions during my stay in Denmark, these initial and unexpected difficulties could thus mainly be circumvented once present in the field. The Greenlandic House and associated gathering places offered welcoming meeting spaces where (potential) participants seemed to feel safe and at ease, decreasing the perceived vulnerability of both the participants and myself. The people who were present in these spaces were very approachable and the localities offered a calm environment for the interviews. The employees of the Greenlandic House in Copenhagen contributed to the friendly atmosphere and also offered their insights. It was possible to talk both one-on-one with participants in one of their offices or in the publicly accessible cafe.

As almost everyone in the meeting spots had a Greenlandic background, the recruitment was mainly based on purposive opportunity sampling. Accordingly, the major selection criteria became the interest, availability and willingness to participate. Over the course of the week in Denmark it became apparent, that this strategy would eventually exclude many of the older guests of the Greenlandic Houses who appeared a bit less approachable and also less comfortable to use English or Danish than the (slightly) younger visitors. Apart from more *technical* barriers such as language, mistrust has been identified as one major factor that may hinder the recruitment process [336]. Proactive adaptation from the researcher's side is therefore of utmost importance to address the narrowly intertwined power-differences and conceptual barriers. In the arts and crafts workshop of the Greenlandic House which was mainly frequented by elderly members of the Greenlandic community, it helped for example that I brought my personal knitting project that I was carrying coincidentally with me at the time. After spending some hours knitting in absolute silence or listening (without understanding) to the Greenlandic conversations around me, I became more accepted by the group.

While direct personal contact in the meeting spaces of the Greenlandic House in Copenhagen proved to be an efficient recruitment strategy, direct personal contact online entailed a surprisingly fast snowball effect. I initially got into contact with a number of Danish friends on Facebook in search of potential Greenlandic participants prior to my arrival in Copenhagen. They reached out to their respective circles of friends and I would thus suddenly find myself in an online conversation with an equally surprised Greenlandic woman. This unexpected first encounter with a potential participant that took place in a digital setting evolved to be the first major challenge for my project. Just being able to see each other's small profile photo and getting introduced to each other through a woman I did not know myself, the previously-mentioned mistrust became very evident. This scepticism was voiced clearly through questions

like “Why me?”, “Do you think Greenlanders are different?”. This consequently had a strong impact on the development of the project and my recruitment strategies. I re-reflected on why Greenland was at the heart of my project and how this could be explained in the best possible way to my participants. I decided to refrain from any use of terms related to post-colonialism and indigeneity, as it would lead to a confirming answer to the question this woman had asked about Greenlanders being “different”. Instead, I decided to focus on the unique setting in which digitalisation is evolving in Greenland and how it might affect the country during times of social, political and environmental change. This first experience of what became a virtual snowball effect also put me in touch with some very central contacts who were of great importance for both the fieldwork in Denmark and Nuuk, assisting me to find contacts in Greenland and meeting me on several occasions to share their insights and networks.

Given the experience from the initial research stay in Denmark, most interviews with officials in Nuuk were set up directly through the conventional channels. A recently opened community centre, *Illorput*, offered the same safe and welcoming environment as the Greenlandic House in Copenhagen. The local team was again more than helpful and welcomed me on an almost daily basis. Through this community centre I gained access to different adult learning groups, a group for mothers as well to the people who frequent Illorput as a meeting place. In order to reach out to people beyond the community centre and the government, I also decided to draw on my positive experiences of virtual snowballing. As mentioned above, my Greenlandic and Danish contacts in Copenhagen stood at the beginning of a chain of potential participants that grew relatively quickly. In Nuuk, I thus decided to start contacting people directly through a platform I had not used for the recruitment of participants in Denmark: Instagram. In contrast to Facebook, Instagram allowed me to search for public profiles myself. Using hashtags such as #Nuuk, #ColourfulNuuk and similar hashtags, I was able to identify individuals based in Nuuk and older than 18 years who might be interested in participating in the project. As I only looked for public profiles, I did not have to invade the digital private spaces of potential participants by sending friend or follow-requests. For the duration of my stay in Nuuk, I decided to change my privacy settings to ‘public’ so that the people I contacted on Instagram had an equal opportunity of getting some impressions from my daily life. Photos of family and friends, holidays and other free-time-activities served as a more personalised ‘business card’, allowing participants to gain a more nuanced picture of me as a person and thus humanising the image of the researcher. In the message I sent through Instagram’s messaging service, I included basic information about the project and offered to send further information in case the person

was interested to learn more or participate. Even though not everyone responded, I had the impression that this way of reaching out to new participants helped to build up initial trust as the Instagram photos prompted, for instance, conversations about shared interests before the first personal meeting or interview. Recruitment through Instagram also allowed me to engage with groups who do not frequent community centres, who are not linked to any of the individuals I knew through the previous interviews I had conducted in Denmark or who do not work in the Greenlandic public sector. However, it also needs to be highlighted that this recruitment method brought me primarily into contact with younger and middle-aged participants with an established interest in social media and hence did not necessarily contributed to a diversification of the demography of my participants. Using Instagram as a recruitment tool therefore granted further insights into the practices and experiences of one age group living in Nuuk (and one participant in Sisimiut).

After posting photos from Nuuk on my own Instagram account, using the above-mentioned hashtags, I also got contacted by a person from Sisimiut who was also happy to share the personal views on the topic of digitalisation in Greenland. The selection of the photos I would publish on Instagram consequently became a more conscious process, as also other contacts I found through Instagram would refer to my photos of Nuuk during the actual interview; judging my visual engagement with Nuuk and Greenland as a proof for my interest in and appreciation of Greenland's natural beauty or as a representation of my perception of Greenland. Also comments like "you really got the spirit of Greenland [...]" (P29) under my Instagram posts (see Figure 4.5) added to the impression that the way I would choose to depict my view of Nuuk was not irrelevant to my local contacts. Most young participants highlighted in the interviews and focus groups the way they "monitor" Greenlandic- or Inuit-specific hashtags on Instagram, as the quantity of posts is likely to be limited yet of personal relevance to them. This way, my own use of social media did not only add to a more trust-based recruitment process in which potential participants were able to evaluate my digital profile before deciding to interact with me, but also to the creation of some additional data.

4.9 Data-Generating Methods

As mentioned previously, this work is based on a combination of qualitative methods that allowed a comprehensive view on perceptions and debates around issues related to digitalisation, citizenship and identity-formation in the Greenlandic digital sphere from the perspective of



Figure 4.5: Instagram photo showing the areas surrounding the Greenlandic capital as seen from the water. The post sparked conversations with participants about the representation of Greenland online (author's own image, May 2018).

a variety of stakeholders. Combining ethnographic observations with semi-structured interviews and CBPR-informed focus groups created three different degrees of involvement with the participants and offered a way to reduce biases that might be evoked by the presence of the researcher. Furthermore, an analytical engagement with Greenland's digitalisation policy was conducted to offer a better understanding of the underlying policy setting. While the data from interviews and focus groups was safeguarded through recordings, note-taking or collaboratively created visuals, I collected my observations and reflections in a field diary. The different tools will be looked at in the following subsections.

<i>Chronology</i>	<i>Place</i>	<i>Method</i>	<i>Composition</i>
Nov'17	DNK	EO	N/A
Nov'17	DNK	SSI	one-on-one
May'18	DNK	SSI	one-on-one
May-Jun'18	GRL	EO	N/A
May-Jun'18	GRL	SSI	one-on-one
May-Jun'18	GRL	PFG	P15 P16 P17 P32 P36 P39 P41 P43 P5 P31 P35 P45 P40 P42 P44

Table 4.3 This table outlines the chronology and composition of participant engagements. Abbreviations used above: DNK = Denmark, GRL = Greenland, EO = Ethnographic Observations, SSI = Semi-Structured Interviews, PFG = Participatory Focus Groups.

4.9.1 Employing an Ethnographic Approach: Participant Observations

Observing one's environment including participant interactions forms an integral part of ethnographically informed studies [309]. Since I had not been to Greenland before, my preconception of the country had mainly been informed by my prior literature studies and my interactions with the Greenlandic community in Denmark. After my arrival in Nuuk, I spent the first couple of days observing the life in public spaces while I started my local recruitment process. Due to the cold weather, most of the public life took place indoors or online. Places I frequented in that period were the local gym, the cultural centre, *Katuaq*, the university and its library, the shopping centre, the public library, cafes, museums and later also a community centre, *Illorput*, in a part of town called *Nuussuaq*. Getting to know and acclimatising myself to the local culture was useful for the upcoming interviews as I could base some of my questions on the observations I had made during those first days. Having just arrived, I would be more sensitive to the new environment, perceiving even small differences as novelties.

During this period I noticed, for instance, that mobile phones appeared to be less present in public spaces than what I was used to. I would rarely see mobile phones lying on tables in cafes or elsewhere. The only place that offered free Wi-Fi was the public library and as the University of Greenland, *Ilisimatusarfik*, provided me with a temporary student card, I was able to use their guest Wi-Fi network and of course, the price I was paying for my hostel also included Internet-access. I realised how I started to plan my daily activities around opportunities to connect to the Internet in one of those three places. When the Internet connection in the hostel



Figure 4.6: The refurbished mission station, *Ny Herrnhut*, was inaugurated as premises for a newly-established theology programme in 1987. In 1989, the University of Greenland gained its official university status [337] (author’s own image, May 2018).



Figure 4.7: The University of Greenland, Ilisimatusarfik, moved to the new Ilimarfik campus in 2008 [337]. The modern campus is located on the outskirts of Nuuk. In 2019, the university counted 206 enrolled students [338] (author’s own image, May 2018).

broke down for two days, this became an even bigger constraint on my daily schedule.

I consequently noticed that Internet connectivity was not something that was taken for granted. In order to be able to call and send/receive messages in-between those three places, I bought a Greenlandic SIM-card. Conscious of the high prices for mobile data, I changed the settings on my phone to reduce the use of mobile data. I would stay disconnected at all times and would only deactivate the flight-mode on my phone if I intended to check for/send a specific message. The documentation of such auto-ethnographic experiences gave me an important understanding of local practices around Internet connectivity before hearing about these in more detail from the personal experiences of my participants.

Besides these first valuable impressions and insights, I also became aware of a further methodological limitation. While I could observe and document my own behaviour and experience with regard to digital connectivity in Nuuk, I was only able to watch how people interacted with their (mainly) mobile devices in public spaces and, through interviews and focus groups, hear about their ways of usage. However, this would only give me impressions from an element that appears in a late stage of a chain of interactions between human and non-human actors, involving a network of policies, (transatlantic) Internet cables, multinational Internet corporations and local social networks to name just a few. Yet, I realised that I was navigating in a multi-sited sphere in which my participants were but one of many elements.

However, their insights would most likely provide me with relevant insight with regard to

the ways that access to digital technology and digitally mediated networks impact upon their individual role as Greenlandic citizens as well as their motivations and limitations for sharing their experiences online while also addressing the roles of other actors in the process. Due to the ethical and methodological complexities of gathering data through social media channels like Facebook, I had decided at an early stage that I would not draw on any online ethnographic data to complement my findings. While the use of digital ethnography methods as described by e.g. [339] might have helped to evade some of the restraints posed by geographical distance and thus to gain access to further communities in other parts of Greenland, a focus on online ethnography might also have hampered the contextualisation of the findings. Following and observing digital interactions as a silent observer raises a number of ethical questions with regard to informed participation and consent. Furthermore, it provides only a selective set of impressions and testimonies which makes it difficult to understand and draw links to the offline lived experiences of people in Greenland in general and the study participants in particular. Working with communities and cultural contexts previously unknown to me, it was crucial for the collection, understanding and interpretation of the data to gain first-hand insights from the field as this would not only allow for shared learning processes but also to challenge and dismantle unconsciously appropriated stereotypes and prejudices. Despite my previous critical engagement with the role of unconscious bias as well as discriminatory representations of Greenland, being in Nuuk made me aware that I was still carrying certain distorted imaginations with me that I probably would not have fully overcome without having experienced the modern and dynamic life in Nuuk through non-digital ethnographically informed methods. Having initially ruled out the use of digital ethnographic methods on ethical grounds, I realised at a later stage the wider epistemological significance of this decision.

4.9.1.1 Field Notes

The above-mentioned underlying ethnographic approach required a detailed documentation of all observations made as well as of the entailing reflections and underlying sentiments [340]. This would later help to analyse the recorded, transcribed or documented statements and to link them back to the specific context in which they were made. These observations were kept in the field diary along with notes on the development of my contact network, decision-making processes and overall reflections regarding emerging themes, impressions from interviews but also my personal state and thoughts. While I tried to keep my personal logs separate from the official research notes during the one week in Denmark, I realised that separating these two was

surprisingly difficult while in Nuuk. The research notes were meant for more research-related content, focusing on methodological or thematic thoughts and developments while the personal log should focus on reflections outside the framework of my PhD.

The difficulty of keeping the two apart could be traced back to two main reasons: firstly, being in the field for one month after over a year of preparation led to a state of mind where not many of my thoughts would not relate to the research topic. While in Nuuk, each and every observation and conversation contributed to my growing understanding of everyday life in Greenland and made me aware of how little I knew about life in the Greenlandic capital before my arrival. Reflections on my impressions constantly raised new questions around Greenlandic culture and identity and the role digitalisation plays in this context. Secondly, it became apparent again to what extent the researcher becomes part of the network they are researching. The impossibility to act as a “neutral entity” that hovers over the experiences like an omniscient narrator became very clear during this process. All observations that were made during conversations, interviews and focus groups depended on my subjective perceptions of situations, behaviour, emotions, meanings and environments as well as on my own presence and behaviour. This made me inevitably part of the above-mentioned chain of interactions that the findings of the present project are built on.

4.9.2 Semi-Structured Interviews

Semi-structured interviews were used for all conversations with GoG and TELE-POST employees as well as for other participants by request or when a focus group could not be set up due to organisational reasons. Interviews allowed me to address questions more directly than in focus groups. Being not more than two, or in two cases three people in one room would also create a safer environment to share more private or critical viewpoints as any kind of group dynamic would not assume the same role in an interview setting as in a participatory focus group. Denzin and Lincoln note accordingly that “interviews are considered non-neutral sites of co-created and situated understandings involving trust, listening and questioning techniques” [341].

As mentioned previously, the semi-structured interviews provided a suitable framework to talk to government officials about the evolution, implementation and motivation behind the Greenlandic strategy for digitalisation, offering time and possibility to learn about technical details and hear about the nuanced views on the topic across the political spectrum. When talking about the ways in which individual participants could benefit from these newly imple-

mented policies to exercise and frame Greenlandic citizenship, the semi-structured interviews allowed introverted participants to share their story without the constraints of experiencing group-pressure. Given the tightly-knit structure of social networks in Greenland, it became obvious that some participants preferred the anonymity of the semi-structured interview over focus groups.

All participants were prior to any kind of research-related conversation provided with an Information Sheet and were offered to ask questions about the project. Consequently, participants were asked to read through the Informed Consent Form B.2. If they agreed on all points listed on that documents and there were no remaining questions, they signed the Consent Form and the interview/focus group would begin (my interview guide can be found in the appendix C.1). As mentioned earlier, interviews were either audio-recorded or documented through note-taking. While taking notes, the focus would be on writing down each word of ‘key phrases’ while other parts of the interview would be documented by noting the central ideas, terms and expressions used and discussed. Once the interview had finished, I would go through the notes and complete certain elements from my memory for clarification and highlight topics that appeared to be of importance to the participant or that evoked the strongest reactions.

4.9.3 Community Based Participatory Research Informed Focus Groups

CBPR has been developed to help researchers and research-participants to establish productive reciprocal relationships, built on mutual trust and respect. Previous studies that have been conducted in collaboration with communities in e.g. Nunavut and other Arctic regions have relied on CBPR methods to “equalise power differences, build trust, and create a sense of ownership in an effort to bring about social justice and change” [342, p.1394] (in reference to [343]). Grimwood et al. [344] discuss the use of “Engaged Acclimatisation (EA)” in this specific context as a way to “encourage endogenous constructions of knowledge” [344, p.213]. They define EA as a “synthesis of research ideas and practices that refers to a process of embodied and reflexive knowledge production” [344, pp.213-215]. Hence, drawing on previous work conducted using CBPR and EA helped to involve my Greenlandic participants in shaping (the direction of) the research process by emphasising their insights, knowledge and perceptions of the given topical area. It thus created a more transparent, creative and shared learning process, which supports community ownership of the project. These principles that inform both CBPR and EA thereby align well with the underlying inductive methodological approach of the present work. However, given the previously described time constraints, I was neither able to develop

long-lasting relationships with the participants which usually form the foundation of CBPR research, nor did I have the opportunity to engage in the cycles of reflection and action which generally define participatory research methods including CBPR.

Nevertheless, the chosen CBPR-informed approach allowed me to place the emphasis on the participants while I, as the researcher, took on a more passive role of an observer and moderator. The “research” fades into the background using CBPR-informed methods and often, a less artificial conversation between participants evolves that might stress other aspects than the issues raised in the more formal interview setting. Clarke et al. [345, p.15] further highlight that materiality of participatory focus groups can foster and mediate trust. As these methods have a strong visual focus, language barriers would also manifest themselves less strongly. Only occasionally, participants asked me to write their contribution on a post-it note as they felt uncomfortable to write in English. The CBPR tools described below hence allowed to create an environment in which participants would feel comfortable to redefine the original question or task based on what they considered to be most relevant for the topic at hand. That way, participants were able to steer the discussion into different directions.

Applying tools from the Social Analysis Systems (SAS2) Handbook for Participatory Action Research [346], I chose to utilise the following three approaches in my focus groups: *the map*, *the timeline* and *the force field*. Depending on the availability of the participants, one of the three approaches was chosen. I was introduced to the SAS2 Handbook during the “Community Based Methods for Sustainable Development in the North” PhD course at Umeå University, Sweden in 2017 where these tools were presented as a way to “engage people and mobilise evidence in complex settings involving multiple stakeholders” [346, p.3].

4.9.3.1 The Map

The map tool was introduced and explained to all participants as a map illustrating their individual experience of information flows. They were asked to consider both incoming as well as outgoing flows of information and were provided with flip chart paper and a variety of coloured pens. Everyone could contribute individually, participants were however asked to work on one map together. This was not followed by one group where the two participants stated that they were too different to be working on the same map and that the construction of two separate maps would provide more interesting results. Most participants first asked about the scale of the map or what countries should be included. However, in order to reduce any bias and to inflict as little influence on the map creation and discussion as possible, it was

highlighted that the participants were free to choose any scale, perspective and design that they found appropriate to reduce any potential influence induced by social desirability bias or demand characteristics [347].

Sometimes participants would interpret the “map” differently and would draw a map of their own inner world instead of a classical political map or would extend the flow of information to the flow of goods and services as different kinds of information-carriers. While they were gently reminded of the initial task, participants were never “corrected”, told that anything was “wrong” or “right” as their individual/collective perception was supposed to be in the focus. Participants would, for example, explain why it was important to also include the flow of goods when talking about information flows in the context of digitalisation in Greenland as these goods would in the eyes of the participants also represent a certain set of information (P42).

The idea behind using the map was to gain a better understanding of the ways Greenlanders access and use the Internet within and beyond Greenland, especially with regard to accessing general information, public Greenlandic/Danish services, sharing knowledge and of the underlying motivations and predominant digitally-mediated networks. The map would allow insights into the geographical dynamics and resulting benefits and limitations of information sharing in Greenland.

4.9.3.2 The Timeline

In one case, the map was combined with the timeline, which proved especially helpful as several generations were present. The discussion around the development of digitalisation with them would naturally drift away from the spatial to a more temporal representation of events. The timeline is another tool introduced in Chevaliers and Buckles Handbook for CBPR methods [346]. As for the map, participants would have flip chart paper and pens at their disposal to outline and discuss how a certain phenomenon developed over time. This offers the opportunity for a more anecdotal and comparative approach. Using the timeline as an additional tool would also help me to understand the perceived development of digital networks over the past decades and linking the biggest milestones to other findings from interviews or other input from focus groups. Figure 4.9 shows the timeline that was created over the course of three hours. All participants of that focus group expressed their appreciation for the opportunity to share their views across different generations in this setting as they learned something from each other which they would otherwise never would have addressed in an everyday conversation.

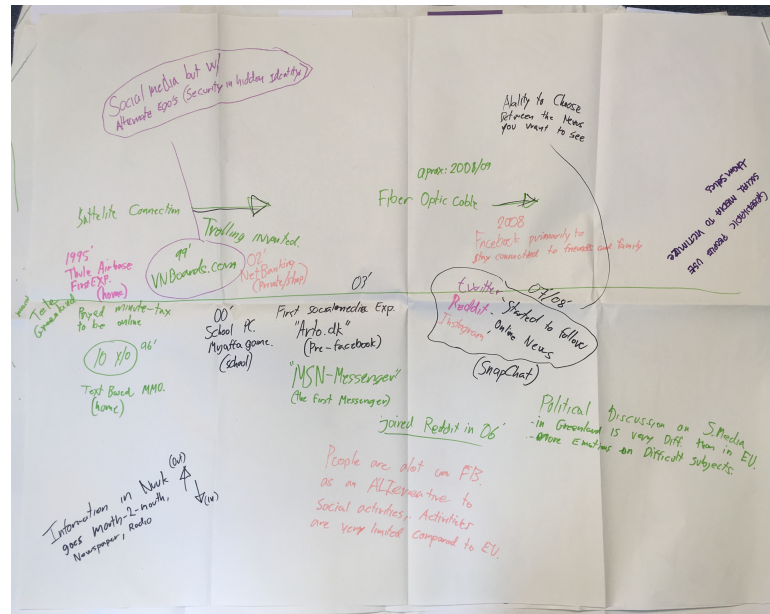


Figure 4.9: Timeline created during focus group session. Two generations contributed with their views and experiences (author's own image, May 2018).

fects/challenges. Again, all thoughts regarding negative effects or challenges would be noted on small paper notes. Once enough notes had been collected or the group had no further ideas to write down, a 2x2 matrix was drawn which allowed the participants to “weigh” and group their notes on a two-dimensional scale. All “benefit” notes were thus distributed on the right hand side while the “challenges” notes were placed to the left of the y-axis. As a group, the participants had then to classify their different items into overarching themes and to decided how to rank their “severity” along both the y-axis but especially the x-axis.

4.9.4 Policy Analysis

To better understand the immediate political environment in which this project evolved, the following chapter, Chapter Five, analyses the two GoG policy documents that have driven the digitalisation process in Greenland since 2014. This chapter thus not only looks at the digitalisation policy which was introduced during the period of data-collection for the present work, but will also take into consideration its policy predecessor. This positions the current policy within a broader political context and provides a potential outlook on future developments in that area.

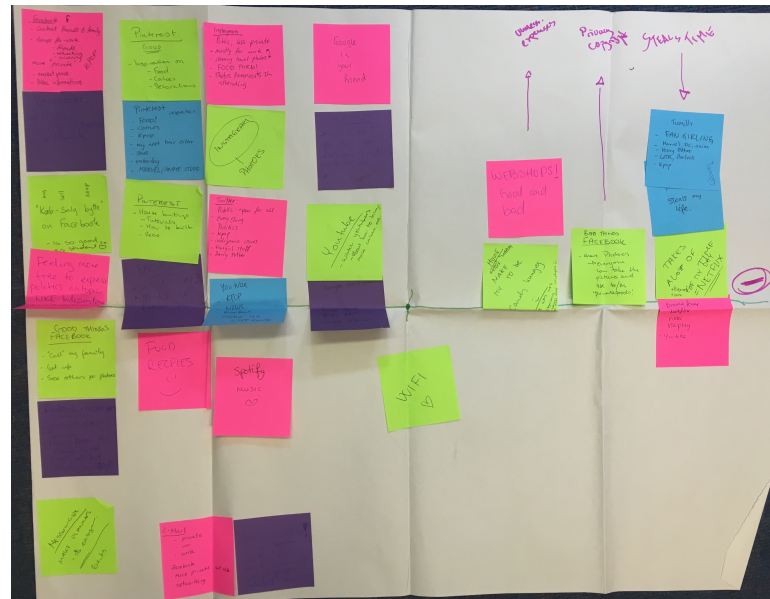


Figure 4.10: Force Field participatory mapping from a focus group session conducted in Nuuk. The image clearly shows that participants mainly discussed the positive aspects of increased digital connectivity as the number of post-it notes on the left hand-side outweigh the post-it notes with negative comments on the right side (author's own image, May 2018).

In line with the general methodology of this project and given the political complexity of Greenland's digitalisation in the context of the country's modern identity and nation-building, the policy analysis is based on the post-empiricist participatory policy analysis approach that weaves in relevant voices from both policy makers, citizens and companies [315, 316]. As outlined under section 4.6.1 on limitations and challenges of the present work, less methodological consideration had been attributed to this policy analysis. Yet, it was deemed necessary to include a critical evaluation of Greenlandic digitalisation policies to bring the findings on bottom-up involvement with Greenland's socio-technical future into conversation with the ambitions in the domain of digital nation-building pursued on the state level.

4.9.5 Combining the Methods

This mixed-methods approach enabled me to adapt easily to the requests and particularities of different situations and target groups, allowing me to gain insights ranging from policy makers' detailed, technical knowledge that helped to me learn about the underlying political motivations, to more personal narratives from individual Greenlanders on questions how the

Internet had enabled them in the exercise of their everyday practices.

The resulting data drew a multifaceted picture which allowed me to identify and learn about some central issues in connection with digital connectivity in Greenland. These issues and concerns would reoccur in several interviews and/or focus groups, suggesting to be resonating with a majority of my participants, and thus maybe even being representative of a broader perception among Greenlanders.

Given the unwillingness of many participants to express any criticism towards authorities of any kind and the knowledge that anonymity is difficult to be maintained in Greenland, the interactive and creative aspect of the CBPR-informed focus groups helped to unveil these issues and concerns. However, their meaning would only fully reveal itself through the technical and personal insights that were shared through the more intimate semi-structured interviews.

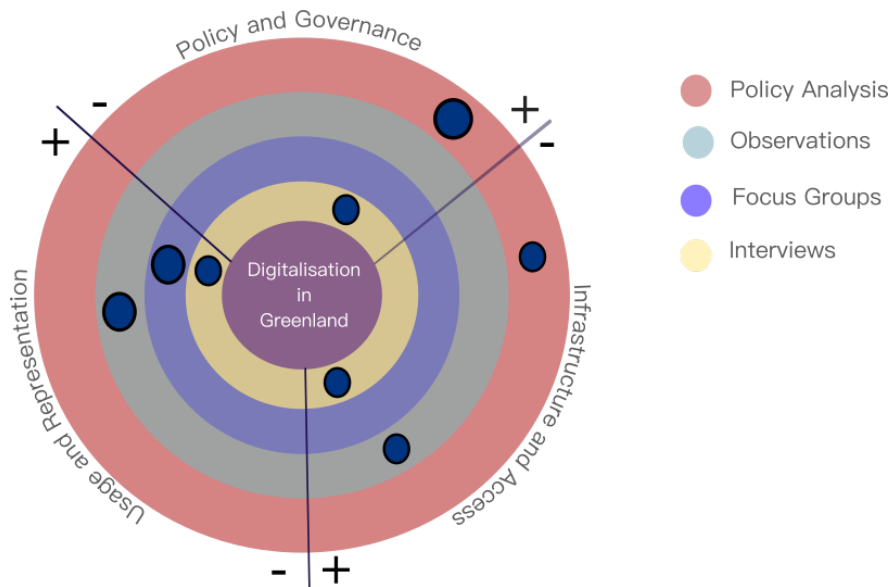


Figure 4.11: This schematic visualises how the different methods (Policy Analysis, Ethnographic Observations, Participatory Focus Groups and In-Depth Interviews) were combined to involve stakeholders and observations from three areas that are deemed crucial to the digitalisation process in Greenland: (1) Policy and Governance (2) Infrastructure and Access (3) Usage and Representation. While (1) and (2) mainly focus on stakeholders and documents from GoG and the telecommunications monopoly TELE-POST, the main emphasis lies on (3): the citizens. The blue points represent which methods were used in each area. Their position between the - and + sign indicates their relative relevance. For example: if a point within the policy part of the diagram is placed in close vicinity to the +-sign on the red circle, this means that policy analysis was a central method employed in that specific area (author's own visualisation).

4.10 Data Analysis

All interviews were transcribed and annotated upon return from the respective field trips while visuals were digitised (see D.1 for an overview of the analysed data). Having gained a first oversight of the acquired data, it was decided that sufficient data *saturation* had been reached to address the research questions. This decision was based on the realisation that, in order to explore the topic in more depth and to gain additional insights, further fieldwork would have been required engaging with, for instance, participants in different parts of Greenland. However, as this was financially not feasible, the engagement with further groups to explore the effects of rapid digitalisation in Greenland has been addressed in Chapter Eight as a possible focus of future research projects.

Following this decision, all material was uploaded to the qualitative analysis software NVivo. In NVivo, relevant annotations were added to the visual data sources, describing both what was visible and linking it to the discussions that had taken place among the respective participants during the creations of the participatory maps. This helped to integrate findings from the visual data during the coding process. In line with the research questions, the relevant literature as well as first findings and impressions from the field and the transcription process, a number of analytical lenses were identified and the data from both the interviews and the focus groups was coded accordingly. During the coding process, as different terms, text passages or notes were labelled with the relevant nodes, further themes emerged and were integrated. Once all central themes that appeared throughout the different data sources, and that were of relevance to the research questions, were covered by adequate nodes, no further themes were included. This process was completed over two stages: the first stage allowed for new themes to emerge from the data, even at a later stage of this coding cycle (see also this overview of themes in relation to theory D.2. This resulted in a comprehensive list of themes which then could be narrowed down to the aspects with most relevance to the thesis' research questions. During the second stage of the process, the data was coded using solely no consequently identified themes and no new ones emerged (see also Figure D.1 in the appendix).

The adopted Thematic Analysis (TA), a method for “identifying, analysing, and interpreting patterns of meaning (‘themes’) within qualitative data” as described by Clarke and Braun [348, p.297], thereby proved as the most useful approach to analysing my data. With its capability to pick up on more latent and hidden meanings [348, p.298], TA further matches this project's inductive, grounded-theory informed methodology and its ambition to listen to and learn from

the experiences and “hidden impacts” resulting from increased digital technology usage in remote communities [249]. Employing a TA accordingly helped to explore central and reoccurring themes across the three different primary sources, including notes, visuals and transcripts. It further facilitated and supported not only the identification of thematic patterns in the collected data through the coding process but also the consequential analysis and discussion of these findings. The identified argumentative patterns and predominant concerns, frustrations and visions will be looked at in more detail in the three analytical chapters of this work.

The following branch of my coding-tree (see Figure 4.12 below and Figure D.1 in the appendix for a more detailed coding-tree) exemplifies how different themes were organised to structure the coding process and the subsequent analysis and discussion of the data, using parent and child-nodes. The overarching topic of *Digitalisation in Greenland* is marked on the top of the branch and links to the question how it affects the concept of *Self-Determination*. The example further focuses on the role of (improving) access and use of *Digital Connectivity* in this context. All of these overarching themes are marked in blue, indicating that no nodes were linked to them.

Exploring the effects of digital connectivity further, the example shows the coding process focused on how evolving digital connectivity in Greenland affects participants’ *Everyday Usage* of digital services. The specific aspect focused on in this example are the different *Development Opportunities* that the participants described when talking about improving digital connectivity in Greenland. These were further divided, where specified by the respective participant, into three sub-categories, including *educational*, *economic* or *political* development. The different colours were added later in the analysis process and indicate whether a majority of the respective data linked to experiences of positive security (green), negative security (red, not displayed in this example) or purple (no clear majority).

4.10.1 The Use of Maps, Quotes and Photographs

Throughout this thesis, a number of maps, quotes and photographs are used to support, illustrate or debate specific aspects of the broader theme of digitalisation in Greenland (see D.1 in the appendix for an overview of the data sources used). Most of the photographs and all quotes were collected by myself during the fieldwork in Nuuk and Denmark while the maps were created at a later stage in order to visualise certain points of discussion or methodological choices. Maps of Greenland and photographs from other sources have been marked accordingly. Even though photographs of the local environments in Denmark and Greenland do not form

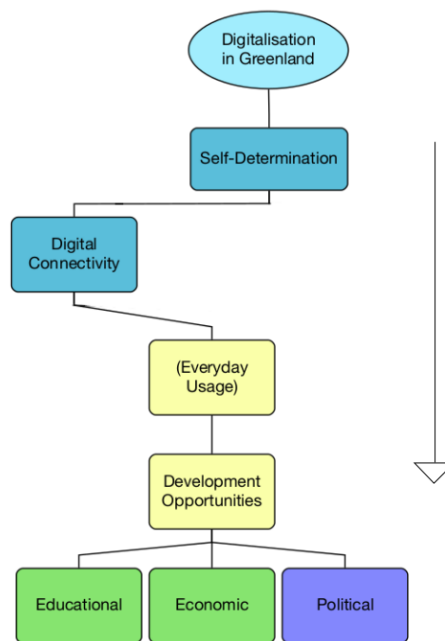


Figure 4.12: This example shows one branch of the coding tree that visualises the hierarchy of nodes used for qualitative coding in the analysis software NVivo. The nodes in the blue text boxes represent overarching themes while the more specific child-nodes can be found in the yellow boxes. The green text boxes indicate that the data associated to these specific themes predominantly focuses on positive/enabling aspects of digitalisation in Greenland whereas the purple text box is linked to testimonies that can be associated to both positive and negative security. A more detailed version can be found in appendix D.1 while the themes are put into relation to the relevant theories and data samples in table D.3 (author's own visualisation).

part of the described data-generating methods, they help to clarify and visualise the findings and relevant research settings. Furthermore, photographs of the collaboratively created 'maps', 'timeline' and 'force fields' are included in the relevant sections of the following three analysis chapters to support the presented arguments.

Quotes from interviews and focus groups that were acquired during the data-collection process are presented to exemplify the respective arguments and are woven into the relevant theoretical debates (see D.3). In case any parts of the quotes might be ambiguous to the reader, they have been adjusted by the author, indicated by the use of squared brackets. Some maps which have been created and included were deemed necessary to highlight the geographical particularities of Greenland. Additional charts were added to the methodology chapter to provide a structured overview to the multimethod and multi-stakeholder research design.

4.11 Concluding Remarks

This chapter explored the methodological journey that led to the findings and discussions presented in the following chapters of this work. Given the negative legacy of often unethically conducted, Eurocentric research in indigenous communities in the Arctic, extensive reflections around ways to adapt a responsible research and innovation approach while acknowledging a wider range of ontological and methodological considerations lay the foundation of the described research design. The combination of different research methods thereby proved invaluable throughout the research cycle, providing me with the ability to better adapt to the needs and preferences of my research participants. Especially the employment of participatory mapping activities served the objective to conduct an inductive and bottom-up study. These participant-focused methods further helped to reinforce the practices of shared learning while stimulating the development of mutual trust between myself and the participants.

Despite prior and continuous reflections on the inclusiveness and critical stance towards potential power imbalances of my research design, a number of personal and methodological challenges arose over the course of the project. Some of these challenges, particularly those related to experiences of being an outsider, turned out to be inevitable in the specific setting of my fieldwork. Others, however, could be accounted for through certain methodological adjustments.

Participatory methods have played a central role in ICT4D, HCI as well as within digital civics research, notably in the context of the development of co-produced designs and the democratisation of access and participation (see e.g. [38, 191, 349]). While a majority of these studies focuses particularly on interface design, the research design described in this chapter expands on HCI scholarship by emphasising the importance of an in-depth exploration of local concerns and needs prior to the development and implementation of inclusive socio-technical policies.

Chapter 5

Government of Greenland's National Strategy for Digitalisation – Securitising Statehood?

5.1 Introduction

Since the anchoring of computers into the functioning of our everyday lives in the 1980s, a multitude of actors, including states, have been working on integrating digital technologies into their organisational structures and policies in order to make better informed decisions and to attain higher efficiency and usability of data [350]. This trend has been advancing continuously and was further boosted by the rise of the Internet in the 1990s. In “The Internet and the End of the National Communication System” James Carey claimed that the new communicative networks would challenge the role of the state leading to “a weakening of its institutions: less sovereignty, less authoritative force, and less capacity for regulation and control of information flows” [351, 352, p.370].

The last two decades, however, have proven that the complex and transnational nature of digital communication networks does not rule out states’ involvement in as well as control and instrumentalization of the Internet and information technologies. Recent cases of, for instance, state surveillance showcase that, instead of weakening the sovereignty of a state or an institution, digital services can easily be utilised to exert control over adversaries and citizens alike [353].

However, besides these examples of power *mis*-use, there have equally been reports of increasing transparency, accessibility and democratisation of the state-citizen relationship, thanks to the introduction of digital, ‘citizen-centred’ solutions within the public sector [354].

How an increasing use of digital technologies of national governments can impact upon the broader conceptualisation of the state through notions of identity and security has already been reflected upon in the previous chapters. Hannah, for instance, contributed to the concept of ‘calculable territory’ by discussing the extent to which state sovereignty has become intertwined with knowledge and power structures in the information age [183]. It thus becomes apparent that the ubiquitous nature of digital data flows closely entangles state- or externally controlled influences with local cultures of knowledge creation and transfer thereby affecting practices down to identity-formation processes on both the individual and the community level.

Hence, in order to understand the role that these state-level digitalisation dynamics play for Greenlandic citizens, this chapter explores and unpacks the policy-objectives of the two most recent Greenlandic strategies for digitalisation. It asks what problems these strategies aim to address, whom they mainly target and what the intended as well as the unintended effects and consequences might be. The role of digital service provision, the reconstruction of Greenland’s economy and associated capabilities but also aspects of nation branding and the risk of *commodification* are examined in this context. Special attention will be paid to the discussion of Greenland’s current political standing within the Kingdom of Denmark and beyond. Finally, employing the framework of positive/negative security [27, 227], the chapter explores how these policies might affect the ways in which citizens can use and benefit from digitally mediated networks by identifying the values and “ideological” motivational underpinnings of the policies [27, 227]. This chapter thereby aims to provide the basis and framework for a juxtaposition of top-down and bottom-up visions on identity that will be explored further in Chapter Six and Seven.

5.2 The Greenlandic Agency for Digitalisation

Greenlandic Agency for Digitalisation (GAD) (*Digitalimik Sullissinermut Aqutsisoqarfik or Digitaliseringsstyrelsen*) was introduced in late 2013 under the government of Aleqa Hammond with the goal to, *inter alia*, “modernise the public administration, increase productivity and to create more coherence in the public’s and businesses’ experience of the public services” [355]. The first strategy “Digitalisation as Driving Force” was published shortly after GAD had been set up and

covered the period 2014-2017. The content built on the government’s first ICT-strategy from 2011. The second strategy developed by GAD is entitled “The Digital Society” and covers the period 2018-2021. While the Agency was first assigned to the Ministry of Finance and Domestic Affairs, a change in government in late 2014 also resulted in a structural shift for GAD which then came under the administration of the Ministry of Finance and Natural Resources. It now reports to the Ministry of Education, Culture, Church and Foreign Affairs. The transferal from domestic to foreign affairs is predicative of the strategies’ topical changes. While the first policy had a strong focus on the improvement of Greenland’s national digital infrastructure, the second and current strategy attempts to place the country on the digital world map through, for instance, a stronger application of international e-governance standards and increasing international cooperation in the digital sphere. The work of GAD has thus been effecting everyday life on the individual and community level in Greenland through both technological development of the available infrastructure and services but also on more ideological level by integrating political and identity visions into this element of policy making.

5.3 Digitalisation as Driving Force, 2014-2017

The first strategy published by GAD opens with a section entitled “The social economy is under pressure” [356, p.4].¹ The section describes the risk of future economic hardship if current demographic trends should progress. The section thereby refers to increasing urbanisation and emigration, especially among young people, and the consequential depopulation of the more rural areas. In a report published by the Nordic Council in 2018, Greenland was accordingly listed as the only Nordic country with a decreasing population [357]. The strategy states that this ongoing and continuous development would leave a predominantly elderly population in these hard-to-reach areas with no or weak (digital) connectivity. The section further addresses the consequential risk of rising social expenses, regional inequalities as well as a general dependency on external expertise in an increasingly digital world. An improved digital connectivity is named as a necessary prerequisite to avoid the creation of a “digital vacuum” in Greenland’s remote areas and to ensure that “the political ambition to be an independent, equal and self-reliant nation can be met” [356, p.4]. This first section sets the general tone and line of argument for the rest of the document. By linking the looming digital void in Greenland’s periphery to future economic challenges against the political backdrop of Greenland’s independence objective

¹As the strategies are only available in Danish or Greenlandic, any direct references to these documents are based on the author’s own translations, as outlined as well in Chapter Four.

reveals the complexity of the issues the strategy aims to focus on.

Throughout the text, different challenges that Greenland is and will be facing are listed. These challenges stretch across a number of sectors, including health care, investments and innovation, education, public services and the register of residents. Intending to reform all of these areas of public life through digital solutions indicates the comprehensive scope of GAD's digitalisation ambitions; also with regard to the population groups targeted by these proposed transformations. The policy mentions inefficient and outdated data management, high travel costs rendering patient care and democratic dialogue costly and ineffective and a lack of international competitiveness in the IT-sector as the structural deficits which might benefit from furthering Greenland's digitalisation [356, pp.11-14]. While the document mainly focuses on ways to address these difficulties through different remote solutions, it provides the reader with only two underlying causal elements, namely geographical as well as linguistic barriers [356, p.11]. It is further explained that these, predominantly communicative, hurdles might entail misunderstandings and errors, immobility, inaccessibility of information and an unattractiveness of Greenland as a location for international businesses [356, pp.11,17]. A third aspect is presented, yet more covertly. The strategy addresses the need for a central Greenlandic database for its "grunddata", its *basic data* on i.e. residents, businesses but also geo-spatial information. As mentioned in a previous chapter, Greenland's basic data is listed in the Danish registries. Thus, Greenland rarely appears in international statistics individually, as its data is either not taken into consideration or is fed into the general Danish data-set. Accordingly, tracking specific societal, economical or technological developments in international comparison becomes virtually impossible. Centralising this kind of data within a Greenlandic digital infrastructure might transfer further control to the Greenlandic administration and potentially facilitate interactions with third parties as Greenland would have full sovereignty over its local data.

Cooperation with international actors is mentioned both as a means and an end, a limitation and an asset, in the Greenlandic digitalisation process indicating a certain ambiguity with regard to potential and desirable partnerships to further the visions presented in the document. While the strategy deplores the country's dependence on foreign experts and indirectly its dependence on Danish administrative infrastructure with regard to the storage and management of basic data, it also ascribes Greenland's ability to "skip a number of development stages" to international expertise and experience [356, pp.2,7]. Additionally, several sections lay out ambitions to make local knowledge, services and opportunities more accessible to foreigners to

attract foreign investors. Lastly, a Bachelor’s programme in computer science is suggested be set up at the University of Greenland in collaboration with international partners.² Denmark, however, is only mentioned once explicitly in connection with the exchange of medical files which is to be facilitated by creating a digital and internationally-transferable medical database [356, pp.15-16]. In contrast, the improvement of an intra-institutional cooperation within the GoG is highlighted as is the aim to create *national* infrastructures and to become a “modern and self-supporting nation”, which shall be “bound together” through the different initiatives described in this strategy [356, pp.2,4,7,11-14]. The wish to integrate and benefit from international digitally mediated networks while avoiding renewed dependencies thus becomes apparent. This balancing act highlights one dilemma at the core of the modern Greenlandic identity-building process that does not only affect decisions made on the political level. This dilemma was also brought forward by participants, highlighting how the identity-debate combines elements of both commodification as well as cultural re-appropriation:

“...we talk so much about culture and how to expose Greenlandic culture to the outside world, what message we want to send. And it is so hard – because we really want to say: “This is us! And drum-dance and tupilaks – but it is ours!” (P37, Nuuk)

Apart from the general goal to simplify the interaction between state and citizen through a newly digitised public sector, the strategy touches upon some specific means through which citizens are to benefit from this process. For instance, platforms for teleconferences are to open a civil dialogue across the vastness of the country, facilitate doctor consultations as well as education through e-learning. Furthermore, physical letters and forms are to be replaced by e-mails and digital documents especially through the self-service platform “Sullisivik.gl” [356, pp.11-12]. The standardisation of the Greenlandic language is to continue to facilitate Greenland-wide communication despite the differences between the local dialects, particularly West and East Greenlandic as well as the Thule dialect [61]. In line with this effort, a digital dictionary is also to be set up [356, pp.11-12]. The country’s digitalisation thus also aims to serve comprehensive homogenisation efforts, not only bridging geographical but also cultural and historically grown differences across Greenland’s different regions. With regard to education, the strategy aims to establish “good IT-knowledge” among all citizens to enable life-long learning as well as better international competitiveness. At the time of the strategy, only 2% of the

²This project has, according to the Head of the Greenlandic Agency for Digitalisation in 2018, already been cancelled. Instead, vocational schools have integrated different IT-related programmes and classes.

education budget had been used on the integration of information technology in the curriculum [356, p.13]. A central aspect named in the document with regard to acquiring better IT-skills is a good command of the English language [356, p.13].

It can thus be stated that the first strategy assumes an overly positive outlook on the ways in which Greenland's current and complex political, social and economic challenges could be addressed through digitalisation. Yet, these reforms remain relatively general, almost utopian visions with little detailed information on implementation and potential limitations. Møller Jørgensen emphasises the fast-moving nature of Greenland's digitalisation in this context as "political events unfold and as new technologies are taken up" [130, p.228]. He consequently argues that a wide array of relatively heterogeneous and evolving visions and interests are driving the debate and setting different priorities. Yet, he also highlights that the overall debate "constructs and legitimises eDemocracy as a way to facilitate participation among citizens, legislators, and public administration through dialogue and instructional polls" [130, p.228].

The lack of detail in the policy identified here might also be related to the fact that the strategy prioritises the advancement of Greenland's digital infrastructure before other measures, such as the above-mentioned digitally enabled citizen-dialogue. Access to the Internet, described as a human right in the strategy, is consequentially portrayed as being *essential* for Greenland to become a "winning nation in the global digital transition". Improved digital access therefore constitutes one of the core objectives of this first digitalisation strategy while other issues are mainly presented as subsequent actions dependent on an improved infrastructure [356, p.7]. However, it becomes apparent that the disabling of communicative barriers is deemed central for Greenland's economic, social and thus political future.

5.4 The Digital Society, 2018-2021

Digital Citizenship is the central theme of the second strategy entitled "The Digital Society". Like the previous policy, it addresses themes around health care, education, digital public services and new economic opportunities. Referring to a survey from 2017/2018, "Citizens and IT", the second strategy, however, suggests that Greenland's digitalisation had sufficiently advanced over the past years to refer to the Greenlandic society as a "digital society" [3, p.6]. The strategy thereby integrates the notion of digital citizenship, introduced in the previous chapter. The document accordingly points towards the finding of a survey that 83% of the Greenlandic population above the age of 15 had Internet access at home in late 2017, which is

a 6 % increase compared to 2014. The strategy further states that 89 % of the same population group had a smartphone in 2017 and that the percentage of people using their mobile device to access the Internet had increased by 29 %, from 17 % in 2014 to 46 % in 2017. Considering thus both Internet accessibility through mobile devices and fixed broadband access, Greenland has hereby reached the European average, according to the strategy [3, p.10].

These statistics, however, only acknowledge the number of Internet-enabled smartphone owners and people with broadband access and say little about access-distribution and usage. These numbers thus provide a relatively weak basis for defining Greenland’s “digital society” and mainly speak to the body of literature that has discussed digital citizenship in terms of access to digital services rather than the more nuanced notions linked to the relevant capabilities and usage motivations; thus prioritising quantitative over qualitative insights. It can also be stated that, at the time of the strategy’s publication, the Greenlandic telecommunications monopoly, TELE-POST, was still working on providing settlements beyond the Internet cable with 4G network access, installing radio poles along the Western Coast which would bring technological advancement equating to “20 years of development”, according to Participants P22 and P24: *“it is like changing from a bike lane to the highway”*. Despite the continuous work on Greenland’s digital infrastructure, the present policy document aims to focus more on how devices and services are used rather than on how Internet-access can be improved. Thus, “distances shall be reduced” by establishing a more inclusive, accessible and coherent public sector [3, p.6]. Following the principle “once only” it shall, for instance, suffice to enter specific data a single time to complete interrelated administrative steps, facilitating everyday life for all Greenlandic citizens [3, p.11].

<i>2014-2017</i>	<i>2018-2021</i>
More and Cheaper Internet (1)	The Digital Citizen (1)
Modernisation of Basic Data (2)	Security and Privacy (2)
Effective, Coherent Public Sector (3)	Common Public Digital Architecture (5)
Digital Education and Competences (4)	Digital Education (3)
Health for All(5)	A more Digitised Health Sector (6)
Innovation and Investments (6)	Innovation, Entrepreneurship, Business (4)

Table 5.1 Comparison of the tables of contents of the two digitalisation strategies (the order of appearance in the respective document is indicated by the number in brackets). Despite great similarities, it becomes clear that certain priorities have changed.

As indicated in Table 5.1, there are obvious similarities with regard to the topics covered by the two strategies. At first sight, only the shift from physical infrastructure to the concept of digital citizenship as a first priority as well as the focus on cybersecurity and privacy rather than on a Greenlandic ‘basic data’ is evident when comparing the two outlines. This initially suggests that, despite Greenland having evolved to be a supposedly digital society, the reforms laid out in the previous strategy are still a work in progress. This, again, highlights the importance that is assigned to mere connectivity. However, the second strategy explores the needed reforms in the different public sectors in more detail and elaborates on concrete steps that need to be taken in order to advance Greenland’s digitalisation in general and the creation of a Greenlandic digital citizenship in particular. Rather than being presented as a generic, universal cure to the various challenges that modern Greenland is facing, digital services emerge as a set of practical tools, able to address a set of specific issues. This shift in focus might be indicative of a greater maturity of this second policy with regard to the feasibility of envisioned measures and changes. Yet, the overly optimistic tone prevails and is reflected in the ambitious and uncritical ways in which digital citizenship is framed and in the opening word’s aspiring claim that digital solutions will “provide equal access and opportunities, create closeness and link the society together”. It further states that “digitalisation [will open] up for increased democratisation and citizenship by, among other things, creating equal access to the public and political decision-making processes” [3, p.3].

Nevertheless, and other than its predecessor, this follow-on strategy also explores some of the limitations that might arise from the suggested digitalisation measures. To avoid social exclusion, the strategy names, for instance, citizen-computers in all municipal and communal buildings where people can access the public services platform *Sullissivik.gl* as well as to offer courses where citizens who are “not yet digital” can take a *digital driver’s license* [3, p.11]. Another measure that shall help to ensure that new digital services are as inclusive as possible is the aim to create simple and intuitive user interfaces [3, p.11]. While the objective is to move all communication into the digital sphere, the strategy states that forms and information will still be provided in printed form when needed [3, p.12].

As already indicated in the first strategy, the major obstacles in the creation of a coherent Greenlandic state that shall be overcome through the digital are geographical distances and the consequential negative repercussions on public and private interactions. The idea of Greenlandic digital citizenship implies that the possibilities to perform, realise and benefit from democratic rights are not to be impaired by the individual’s geographical location within and beyond

Greenland. This is to be realised by the previously mentioned increase in digital self-service solutions and overall digitalisation of the public sector [3, p.13]. Further measures comprise the idea of introducing a digital remote-voting system and to find ways to include other measures to “create more equality, openness and strengthening citizens’ access to democratic processes” [3, p.6,11-13]. How this democratisation through digitalisation might take shape remains, however, relatively unclear as the strategy states that this area still needs to be explored further [3].

Moreover, the strategy presents the ambition, developed in cooperation with the Nordic Council of Ministers, to create an e-ID for Greenlanders. This card is not to replace the internationally recognised Danish/Greenlandic passport but is meant to make it easier for citizens and businesses to act freely in the Nordic region [3, p.8]. The importance of this card’s usability beyond the symbolism of Greenlandic citizenship was stressed by a GoG official:

“The key to unlocking services to Greenland is based on NemID³ from Denmark and then we are back to the independence discussions: should we actually spend time on building our own [system]? Yes, it is mentioned in the strategy, we would like to have a national ID-card or e-ID but how exactly how does that relate to the Danish NemID? (...) We still have a lot of cooperation between Greenland and Denmark: we have people studying in Denmark, moving to Denmark and from Denmark to Greenland. We need to make sure that these public services are working cross-border, and how will we do that if we start doing our own national e-ID?” (P13, London)

The use of the e-ID would grant better mobility within the border of the member states of the Nordic Council, including the Baltic states [358]. This would allow citizens of the respective countries to have easier access to e.g. welfare benefits or banking services across the area without having to hold a civil registration number in each country [359]. It would thus be easier for Greenlanders to live, work and travel in any of the countries in question, providing them with more options beyond the Kingdom of Denmark. As indicated by this attempt at stronger relations and improved mobility within the Nordic and Baltic region, the current strategy has a stronger focus on the country’s international relations and standing. It thus talks in detail about the aim to expand Greenland’s international cooperation and highlights in this context an extended partnership especially with the Nordic and Baltic countries but also with the EU [3, pp.6,8,11,15,25].

³NemID (meaning *EasyID*) is a digital login application used in Denmark to access, for instance, Internet banking, public as well as certain private services.

5.4.0.1 International Guidelines and Cooperation

Both strategies refer to international frameworks as points of reference, notably the Organisation for Economic Co-operation and Development (OECD)’s *12 principles* from its *Recommendation on Digital Government Strategies* [360], the United Nations (UN)’s 17 Sustainable Development Goals (SDG) [361] as well as the EU’s General Data Protection Regulation (GDPR) [362]. This is meant to set comparable standards for Greenland and its “(European) trading partners” and reinforce cooperation especially with the Nordic countries, e.g. in context of project *Generation 2030* which is “designed to enhance and speed up the implementation of the 2030 Agenda within official Nordic cooperation” [363]. Working along the lines of international standards is to help set Greenland’s development more easily in relation to other countries’ progress through mechanisms such as the EU’s Digital Economy and Society Index (DESI) [364]. The strategy thus envisions the facilitation of keeping pace with fast changing technological developments and standards.

The multilateral cooperation with Nordic, Baltic and European partners is first and foremost presented in the light of creating a homogeneous digital sphere to facilitate cross-border exchange and movement of goods, people and especially data and knowledge. Greenland would thereby also contribute to the EU’s Digital Single Market [3, pp.15,25]. The GoG’s ambitions can also be seen in line with the continuous commitment of both the Nordic Council as well as the EU to strengthen their relations with Greenland [365]. Accordingly, the EU announced in 2018 an increased financial allocation, with an increase from GBP 187 million (EUR 217.8 million) to GBP 193 million (EUR 225 million) for the period 2021-2027 [365].⁴ The EU’s financial support to Greenland is designated to be solely used for the reform of Greenland’s educational sector and aims to assure, similar to the Greenlandic digitalisation strategy, access to quality education irrespective of a child’s geographical location within the country [366, p.1]. Ulrik Pram Gad has described the varying, not always inherently consistent links to different political entities as “sovereignty games” played by Greenland [367, p.22]. In the context of these ‘sovereignty games’, Gad argues, Greenland explores the functional rather than solely the traditional, territorial notion of sovereignty. The described digitalisation measures and associated multilateral co-operations can be seen in the light of this reasoning as additional pathways for GoG to strengthen and employ self-determination within a number of areas and thereby paving the way towards increased independence.

The strategy also stresses the aim to fully comply with the Danish Data Protection Act as

⁴At the exchange rate EUR-GBP from March 2019

well as the EU's General Data Protection Regulation (GDPR) as this is essential for Greenland in order to obtain the status of a "safe third country to the EU" [362, 368, 369]. A status that was deemed essential for Greenland's international status by a GoG official, suggesting that compliance with international standards and expertise may function as a driver for digital and economic development in Greenland given the prospect of additional income through the installation of international data-centres:

"[...] [Cybersecurity] is a very important topic because ... we need to make our data secure, we need to get the status of a secure third country as seen from the EU. We know that the Faroe Islands – they got this status in 2016 or 2017. Rumour has it they spent 7 years on getting there ... but we can reuse some of their experience ... to become a secure third country. And this is one of the first things we would like to do. It is kind of a priority and luckily the government has put this about data-centres into the coalition agreement ... because it would not make sense to have data-centres without being a secure third country." (P13, London)

Making the compliance with European Data Protection Standards a political priority potentially also marks out the prioritisation of data and information protection over the protection of individual and community interests which do not appear to constitute the driving force behind the stated measures. These further indicate a continuous orientation towards Europe and the EU for cooperation rather than to Greenland's geographically closer neighbour Canada or even the USA. Accordingly, all Greenlandic registers containing personal data would have to be mapped and reported to the Danish Data Inspectorate before the 1st of December 2019, as required by the Personal Data Act [3, p.15]. Obtaining the status of 'secure third country' would allow Greenland to host so called data-centres in which multinational technology and Internet companies could store their data.⁵ The strategy highlights that these data-centres could constitute a new cornerstone of Greenland's changing economy, bringing the country not only additional revenue but potentially also improved (digital) infrastructure, business and political relations.

The reason why the Baltic countries are named several times can be linked to the growing involvement of the Baltic states in the Nordic Council as to Estonia's contribution to the intro-

⁵The EU's General Data Protection Regulation (GDPR) was adopted in 2016 and implemented in May 2018. It covers digital data protection and privacy for citizens of both the EU and the EEA. It further regulates the flow of personal digital information to third countries or organisations. As described under Article 44 to 50 of the GDPR, personal data may only be transferred to countries' for which the European Commission has found that "adequate levels of protection [of the information flows] are being ensured [362, Art.45]. These adequacy decisions are based on set procedures and requirements listed under Article 45 [362, Art.45].

duction of the data exchange platform called *Pitu* which is the most recent solution approach for the previously mentioned question on basic data storage and management. *Pitu* came into full operation in January 2019 and is based on Unified Exchange Platform (UXP) technology developed by the Estonian company Cybernetica [370]. *Pitu* is Greenlandic and describes the element on a dog-sledge that connects the dogs to their guide and is symbolic for the unifying influence that the technology shall exert on Greenland’s new centralised and standardised data storage and thus facilitated data access for citizens [371].

Denmark, however, receives comparably little explicit attention also in the second strategy. Despite the remaining bond between the two countries, Denmark is mentioned only a couple of times. While Denmark is obviously part of the Nordic cooperation that the document refers to repeatedly, it is directly referred to as “foreign”: “Foreign authorities and institutions are increasingly demanding digital exchange of personal data, an example being Denmark in the tax and health field” [3, pp.14-15] or as politically benefiting from its relations with Greenland: “With Denmark’s demands on the North Pole on behalf of Greenland, the country has become extremely interesting in an international perspective” [3, pp.14-15]. Overall, it consequently becomes clear that GoG looks to Europe and especially the Nordic and Baltic countries for cooperation and inspiration or guidance in its comprehensive digitalisation project. Denmark, however, does not get a specific role assigned in this process. Clearly positioning itself on the international stage, a lot of the present strategy’s argumentation and motivational aspects relate to Greenland’s political objective to move further towards full independence from Denmark.

In the context of this international outlook, the strategy also explores the further development of information flows, especially in the context of education in and about Greenland. It states, for instance, how Information and Communication Technology (ICT) needs to be integrated into teaching of all subjects in a “creative and innovative way” [3, p.18]. This is to include all citizens equally into the digitalisation process in Greenland and facilitate equal access to knowledge as well as to “knowledge sharing from North to South, East to West – and further into the world” [3, p.18]. Conferences are to be streamed to a greater extent to inform locally and internationally to achieve “greater dissemination and support for the projects. In an international perspective, we can get more eyes on our country” [3, p.18]. This is also meant to help with the government’s ambition to “preserve and spread the Greenlandic cultural heritage” through increased accessibility thanks to the digitisation of data [3, p.18].

This second strategy describes the Greenlandic digitalisation ambitions in more detail. However, even though more concrete measures are outlined, the central ideas which were introduced

in the first strategy remain the same: a digital centralisation and thus simplification of the entirety of the public sector offering digital citizens easier access to the required services irrespective of their location. The positive outlook as well as the motivation to grant GoG more autonomy through digital means thus also dominate this document. It should, however, also be noted that both strategies are national policy documents which primarily aim to shape the country's overall strategy and to give political guidance while the practical implementation of these visions rather lies with the municipalities on the one hand and TELE-POST on the other. Yet, the policy provides interesting insights as to the political direction that GAD and GoG steer towards.

Discussion

5.5 New Visions for Inclusive Self-Determination

As indicated by the references to the aim of becoming a self-supporting nation, the two policy documents of GAD appear to be subject to the GoG's overarching political goal of working towards further (economic) independence from Denmark. This objective dominated recent election campaigns and was eventually listed in the 2018 coalition agreement [372, p.4]. This ambition is reflected in a number of different digital initiatives proposed to strengthen Greenland's democracy, economy, international competitiveness, cooperation and overall perception. These measures fall into four different, yet interlinked categories:

- (1) Economy: Boost the Greenlandic economy, for instance, through becoming the future host of lucrative data-centres and establishing a more (cost-)efficient and centralised public sector.
- (2) Control and Sovereignty: Expand state control through the expansion of digital infrastructure to connect and cover all of the inhabited Greenlandic territory as well as through the digitalisation of Greenland's population data.
- (3) Inter-Regional Inclusion: Make public services accessible from anywhere in Greenland despite geographical remoteness and isolation.
- (4) International Cooperation: Gain in international standing and recognition through reinforced and digitalised representations and branding efforts.

This discussion mainly focuses on (2) and (3). Accordingly, the previous and current strategy interweave clearly set out measures to raise living standards and economic potential with the general political agenda of the leading Greenlandic parties.⁶

Since the establishment of Home Rule in 1979, the strongest factions in the Greenlandic parliament have been mainly pro-independence, with either *Siumut* or *Inuit Ataqatigiit* leading the government [374]. However, in 2018, the Greenlandic premier Kim Kielsen (*Siumut*) stressed during a press conference that the country was not yet ready to stand on its own, suggesting that more preparatory work was needed in order to “leave no one behind”, pointing towards Greenland’s various regional development differences [375]. Correspondingly, a GoG official summarised the overall goal of the Greenlandic Ministry for Housing and Infrastructure to be:

*“...to ensure [that people are able to] live in Greenland – in **all** of Greenland, or at least where there are now settlements [...] so it has been a priority for the last government and also this government to ensure that they have the infrastructure that is needed and that is: transport by air, by sea and it is also telecommunications and what[ever] is needed. That is the main thing for our department.”* (P30, Nuuk)

The fact that the strategies link technological progress and improved digital communication systems to a potentially higher degree of *de facto* self-determination for all parts of the country thus does not come as a surprise and can be seen to be in line with the politics of Kielsen’s governing coalition. Aiming to provide the same (digital) services and digitally enabled development across the country avoids the reproduction of the trauma that was inflicted upon the Greenlandic people in the 1960s through the forced urbanisation programmes described in the Background Chapter; a period that appears to have become a symbol of Greenland’s heteronomous past and witness to the great societal changes of that period (P19, P33).

The idea that remoteness and democratic citizenship are not mutually exclusive concepts hence appears to constitute a central part of the foundation for Greenland’s modern nation-building process. Mobility, physical presence and personal interaction, the long proclaimed cornerstones of a functioning and flourishing civil society, are accordingly not ascribed fundamental value, following the argument and visions that can be found in the digitalisation strategies [376, 377]. The two Greenlandic digitalisation policies thus propose a tailored digital

⁶The coalition agreement was set up by the three governing parties in 2018: *Siumut*, *Atassut* and *Nunatta Qitornai*. *Siumut*, ‘*Foward*’, is a social-democratic party that has been in government in Greenland from 1979 to 2009 and again since 2013 until today. *Atassut*, ‘*Solidarity*’, is a liberal-conservative party in favour of preserving the Danish Realm and the *Nunatta Qitornai* party, ‘*the Descendants of Our Country*’, is based on a separatist ideology [373].

solution to the principal challenges any geographically isolated or rural community might be facing without drawing on physical alternatives or back-ups.

The political vision presented in the strategies of GAD can thus be viewed in the light of a novel approach towards Greenlandic nation-building as they differ from previous, predominantly economic policies which were developed and debated in GoG's motivational context of increased (financial) autonomy. By linking local digital services in areas such as health, education and information flows within and beyond Greenland to global governance opportunities under the umbrella of digitalisation, the two digitalisation strategies employ a more holistic political and societal outlook on national development. The political allowance for the physical and mental well-being for all Greenlanders illustrates an increased consideration for Greenland's various social problems from part of the government. The strategies can thereby be interpreted as a new nuance in Greenland's independence debate, connecting self-determination not solely to fiscal self-efficiency, territorial sovereignty or nationalist discourse but also to the integration of all parts of the community into a more transparent democratic process, emphasising human agency and well-being. The following chapters will explore to what extent this trend is reflected in the views and experiences of this study's participants. The concept of digital citizenship plays a central role in this context and will be analysed and discussed further in the following sections.

This outlook, however, builds on the assumption that economic and social well-being, democratic inclusion as well as the overall provision of expanded freedoms as described under the capabilities approach [192] can be achieved through the mere improved accessibility of certain digitally enabled services. Such an approach might be negligent of specific local challenges, including those that might exist along the lines of the digital divides introduced in Chapter Three [209]. As also outlined in Chapter Three, Ribot and Peluso define access as "the ability to derive benefit from things" rather than the right to do so [217, 378, p.1]. Shifting the focus from rights to "bundles of access powers" [378, p.153], it can be questioned to what extent the targeted Greenlandic communities can actually benefit from the intended digitalisation measures. Given the monopolistic position of TELE-POST as well as Greenland's colonial past, it can further be asked to what extent power imbalances are reproduced in Greenland's digital sphere, leaving the more remote or marginalised communities with little means to shape the structures and services that aim to 'solve' a variety of social struggles that particularly affect the everyday live practices in the remote communities.

Before further exploring these everyday experiences and consequential challenges and benefits of Greenland's advancing digitalisation from a bottom-up perspective in the following two

chapters, the coming sections will firstly delve into the possible political conceptualisation and implications of Greenland’s digitalisation.

5.5.1 Greenland’s New Sovereignty – Securitising Statehood through Infrastructure?

As also described in Chapter Two, the missing piece in Greenland’s independence-puzzle has to date mainly been looked upon as a fiscal issue [16, 379, 380]. In a document that appeared through WikiLeaks in 2007, the US Embassy in Copenhagen reported that, according to a senior Greenlandic official, the country was “just one oil strike away from gaining full independence” as read in: [379, p.67]. As this statement suggests, attempts to render Denmark’s block grant redundant and to shift Greenland’s economic profile away from fisheries and subsidies have, in the country’s modern history, mainly revolved around the extraction of natural resources such as gas, oil, rare earths or uranium [381].⁷ In recent years, the country’s tourism sector appeared as an additional source of economic growth. In 2017, about 84 299 tourists came to Greenland which is an increase of about 10 % compared to the previous year [383, p.3]. These growing numbers of visitors have demanded an extension of Greenland’s poor physical and touristic infrastructure with one bottleneck being transport by air. The arrival to Nuuk or the tourist-hub Ilulissat by airplane is currently mainly possible via the international airport in Kangerlussuaq [384].

The planned airport extensions as well as uranium mining have entailed wide-ranging objections on various levels regarding potential environmental and economic risks as well as political implications as the realisation of such projects would heavily depend on foreign involvement and investment [379, 385, 386, p.67]. The continuous interest of Chinese firms to invest in various mining activities and the airport construction/expansion in Nuuk, Ilulissat and Qaqortoq caused numerous political outcries over the past years [386, 387]. Due to Greenland’s geographical proximity and military relations to the United States, the Chinese ambition to become involved in infrastructural expansions in this geo-strategically important area has raised security concerns in both Nuuk and Copenhagen [386, 387]. This further led to the question whether a decision of such importance in terms of security policy would actually fall under Greenlandic competence following the Greenlandic SGA which left the areas of foreign and defence policy with the Danish government in Copenhagen [387, 388]. These attempts to ‘securitise’ the

⁷Greenland receives an annual block grant from the Danish government of about DKK 3.8bn (GBP 465m, at the exchange rate from September 2020) [382].

development of Greenland's infrastructures have been read as a set-back to Greenland's independence movement by turning it, potentially, once more into a geopolitical playing stone in the hands its former coloniser and its allies [387, 388].

In these debates, Greenlandic airports and mines have materialised to become 'hard' elements of 'high politics' in a network of critical infrastructure, securing 'soft' relations in and beyond Greenland [389, p.492]. With the American airbase in Thule and increasing cooperation between China and Russia in building infrastructure in the Russian Arctic in line with the Chinese "Polar Silk Road"- policy, Chinese involvement in the construction of airports also in Greenland has thus been framed as a potential political threat [387]. A threat, presented within the traditional framework of 'negative security', that provoked political intervention and debate to ensure the containment of a potential security risk to the sovereignty of both Greenland and its political partners [27]. Accordingly, it was eventually decided that major investments for the airports in Nuuk and Ilulissat would come from Denmark, granting the Danish government co-ownership of the two airports [390].

The role of realist reasoning, that also underlies the concept of 'negative security' [32], becomes clear as sovereign states appear to be framed as the major actors and recipients of security efforts in the context of the development of decisive infrastructures in Greenland. The politicised securitisation of Greenland's infrastructural expansion indicates a continuous prioritisation of external values in the local self-determination process as well as a rapprochement to Denmark and its partners as guarantors of Greenlandic integrity. Infrastructures thus emerges as a vital element in the construction of Greenlandic statehood which is, however, primarily subject to foreign security concerns.

Despite scepticism, Greenlandic telecommunications monopoly TELE-POST was not dealing with comparable political resistance in 2017 when it decided to work with the Chinese telecommunications and electronics company *Huawei* on the extension of the submarine cable that connects Greenland to the Internet via Iceland and Canada [391]. Huawei did consequently not only provide the terminal equipment to the landing points on the new northbound cable to Aasiaat but also updated the equipment on the existing cable *Greenland Connect* [391]. All Internet traffic to and in Greenland thus goes today through Huawei equipment. Following international debates about the company's relationships with Chinese authorities, concern has also arisen in Greenland regarding potential illicit access to any Greenlandic data flows [392]. Contrary to physical infrastructure, digital networks in Greenland appear to have fallen under the radar of the political securitisation process.



Figure 5.1: Telecommunication Infrastructure in Nuuk, Greenland. Telecommunications Infrastructure is relatively visible in the cityscape of the Greenlandic capital, due to its prominent positions on top of rocks and other central locations. (author’s own image, May 2018)

Juxtaposing the awarding process for both physical and digital infrastructure projects to foreign investors might indicate political priorities of both governments in Nuuk and Copenhagen regarding which elements in Greenland’s developing infrastructure are seen to be in need of securitisation in the process of statehood taking shape in the Arctic. Furthermore, in 2018, TELE-POST achieved a surplus of over GBP 16 million (DKK 137 million) which can be attributed to the high Internet prices across Greenland and the public’s interest in buying TELE-POST’s telecommunication products [393].⁸ The surplus was, with TELE-POST being a state-owned telecommunications monopoly, transferred to the disposal of GoG and intended to contribute to the construction of the above-mentioned airports [393]. A GoG official commented accordingly: *“so actually the government has two competing interests: low [Internet/] prices and still [to get a] surplus to use for airports and other activities”* (P30). Even though the high Internet prices, especially for mobile data services and in areas beyond Nuuk, are a

⁸At the exchange rate DKK-GBP from March 2019.

common source for public discontent, they also appear to present a reliable source for public funding as subscriptions for mobile data and fixed broadband subscriptions have been continuously rising, as have the volumes of consumed data (P22 and P24). While the high Internet prices can widely be justified by the high costs of Internet access in the Satellite-serviced areas (*“Nuuk pays for all of Greenland”* (P22 and P24)), the surplus mentioned-above still indicates a certain profitability which appears to not support the ambitious goals of improved connectivity and living standards through digitalisation expressed in the two digitalisation strategies but rather feeds into the more lucrative airport expansion in Greenland’s touristic centres in the North, South and Capital region.

This section aimed to place Greenland’s ambitions to expand its (digital) infrastructures into the broader political context of modern nation-building in the Arctic, a region in which various political actors continue to take a strategic political interest. This underlines that the Greenlandic digitalisation strategies did not emerge in a geopolitical vacuum. Expanding digital infrastructure seems to have been interpreted as a central element in the securitisation of the country’s borders against external influences. Following the negative security angle, it could consequently be argued that, despite their holistic outlook, Greenland’s digitalisation policies do not only serve the population’s ability to practice inclusive and self-determined citizenship but strongly relate to political ambitions to shape new forms of sovereignty for the Arctic country. The following section explores this argument further by exploring the potential role of increased data sovereignty for Greenland.

5.5.2 Data Sovereignty – Quantifying the ‘Empty Territory’

As already elaborated upon in Chapter Three, European imperialism in Greenland and elsewhere was constructed around the conceptualisation of foreign territories as empty. Blank spots on the world map were meant to be discovered, explored and in many cases also conquered and eventually exploited. As also previously outlined, outdated imaginations from the time of Greenland’s colonisation live on to the present day. They preserve selected ideas of remoteness and primitivity for instance through one-sided representations in art, educational material and popular culture.

The imprint of such imaginations and misrepresentations appear to extend even to the political realm. Donald Trump’s expressed wish to buy Greenland from Denmark in August 2019 is one example of such subverting views on Greenland’s self-determination in the public realm, as he described the envisioned act of purchase as *“essentially a large real estate deal”*

[394]. Along with Trump’s description that “*Denmark essentially owns it [Greenland]*”, much of the international media coverage following the event was referring to Danish ‘ownership’ of Greenland in various ways (e.g. [395]). Another focus lay on the geo-strategic value of Greenland as well as the land’s richness in natural resources (e.g.[396, 397]). The voices and rights of the local population, however, received only limited attention in this context, assigning them secondary importance after the territory’s economic and military value for Western powers. The Greenlandic politician Sara Olsvig reacted to Trump’s inquiry and the following media reports through a public Facebook post, stating: “*This fuzz about the #BuyGreenland attention has shown, that we as self-governing peoples and Indigenous Peoples continuously have much to fight for, for our RIGHT to self-determination, and to be fully recognised by all states, in media and mainstream politics. We are #NotForSale because we cannot be bought.*”[398]. One of the two Greenlandic representatives in the Danish parliament, Aaja Chemnitz Larsen, added regarding Trump’s disregard for the Greenlandic people: “*It’s never nice to be treated as a commodity*” [399].

Internationally recognised legal frameworks, such as the right to self-determination, should protect indigenous or other marginalised peoples from ‘inquiries’ of this kind. This case, even though unusual in many ways, however bears witness to a continuous disregard for the agency and legal standing of Greenland as an autonomous territory with a self-determined people. Apart from the misrepresentations in art and popular culture described in Chapter Three and further explored in Chapter Seven, another aspect closely related to Greenland’s digitalisation strategies might have contributed to the fact that Greenland continues to be perceived as an ‘empty territory’ or ‘commodity’ as described by Chemnitz Larsen. Looking at visual representations created through various data mapping tools, one often finds a *blank data spot* in the Northern Atlantic. As also mentioned in Chapter Three, due to *inter alia* its dispersed and small population, data from Greenland is often not captured, insufficient or otherwise fed into the general Danish data-set, leaving the Arctic island greyed out and thus creating the impression of Greenland being uninhabited or in a state of uncertain land tenure.

The Greenlandic digitalisation policies address this issue through the aim to improve and expand Greenlandic data acquisition, storage and access, especially with regard to its basic data or *grunddata* which is still mainly stored and managed by Denmark. P13, a GoG representative commented on this issue, debating whether Greenland could progress towards political independence given that there is currently no Greenlandic system in place to administer the country’s basic data-sets:

“We are also doing something, in Danish it’s called ‘grunddata’ – basic data: personal register with information on citizens, company registers, information on companies’ sizes, their revenue and their profession, buildings’ register, addresses [...] and all that data needs to be available to municipality offices and to the larger corporations in Greenland. That project is on-going but strangely enough, when we talk about independence: in that one project we are using the Danish CPR-register, the personal data register from Denmark, and we are using the Danish company register. So on the one hand: we would like to work towards independence but we have some very basic registries that is actually based on something that is in Denmark. [...] Can we be a nation without actually having their own population register? Interesting question! I don’t know.” (P13, London)

To be the master of one’s ‘own’ population’s data tracks can also be read in connection with the notion of *indigenous data sovereignty* which has generally been characterised as “authority over the management of data about indigenous peoples, their territories and ways of life” which, according to Kukutai and Taylor requires a further “decolonisation of existing nation-state statistical systems” [187, pp.14-15]. The lasting link with Danish administrations regarding the management of Greenlandic data could, in this context, be interpreted as a post-colonial “symbol of power [imbalance] and mechanism of control” [81], *de facto* undermining Greenlandic self-determination. Meanwhile data management does not, according to the 2009 SGA, explicitly fall under Danish competence. Yet, P13 highlights the fundamental practical challenges in overcoming this issue, creating a dilemma regarding the attainment of political goals and the necessary structural reformations:

“We don’t have enough money to actually build it [our own data registry]. I don’t know how much they are aware of this at the political level and then it is back to the people working in the government: if you work in the government and you come from Denmark and somebody says we need a population register and you only have this amount of money – will you go to the politicians and say: ‘I cannot do this [task] because we need to build this register in Greenland because the end goal is independence.’ I don’t know. I don’t think anybody has thought about it and at the same time, money is limited, it is always limited one way or another. So we need to find ways of saving, reducing costs where we can.” (P13, London)

Touching upon the political visions that are supposed to build the foundation to Greenland’s

digitalisation process, P13 highlights certain inconsistencies in the practical implication of these visions. These inconsistencies can also be found in the scope of the right to self-determination itself. Kukutai and Taylor argue accordingly that “while indigenous peoples have long claimed sovereign status over their lands and territories, debates about ‘data sovereignty’ have been dominated by national governments and multinational corporations focused on issues of legal jurisdiction” [187, pp.1-2]. This observation also relates to the situation in Greenland where the population’s recognised right to self-determination extends for instance to the country’s sub-surface rights, however, not into the digital sphere. This does not only raise questions with regard to the current international regulations determining data ownership but can have significant repercussions with regard to practical execution and experiences of self-determination of indigenous peoples in the digital age. In a time where the successful control and manipulation of data is one of the most prominent instruments of power and influence, the quantification of people and their interests, wishes and hopes, actions and possessions is increasingly equated with a proof of existence, significance and self-value. It can be argued that the increasing value of the quantification of people’s actions and existence is linked to the monetisation of these data points. The external control of a people’s fundamental data-sets can therefore be seen as a considerable set-back to Greenlandic independence ambitions.

However, the transferal of this type of control is not only challenging due to a lack of financial means. P13 further describes the complexity around the questions of Greenlandic data sovereignty by referring to the historically grown interwovenness between Greenland and Denmark that has already been imprinted on to the digital fabric connecting the two countries:

“Well actually Denmark is a pretty good example, they have one of the more digitised countries in the public sector, they have a government right now that is focusing right now on optimising, reducing costs, digitisation within the public sector and I think they have done some interesting studies on how to do the digitalisation. But they have also digitised a lot of the things we need within the public sector. Within health care you have the patient data, the journals are fully digitised, you have it all tied up in Denmark with NemID. We also have NemID in Greenland but that is also one of the interesting things: the key to unlocking services to Greenland is based on NemID from Denmark and then we are back to the independence discussions: should we actually spend time on building our own [data registry]? Yes, it is mentioned in the strategy, we would like to have a national ID-card or e-ID but how exactly how does that relate to the Danish NemID? We still have a lot of cooperation between

Greenland and Denmark: we have people studying in Denmark, moving to Denmark and from Denmark to Greenland. We need to make sure that these public services are working cross-border, and how will we do that if we start doing our own national e-ID?" (P13, London)

While data sovereignty might be a central idea to the advancement of Greenlandic independence and ingrained in the theoretical and practical recognition of indigenous rights, the nature of digital networks make it difficult to draw a line demarcating national but also historical and cultural boundaries in the digital sphere. The substantiation of political power through numerical data has been discussed in the literature through themes like ‘statistical citizenship’ or ‘calculable territory’ [183, 400]. Hannah discusses the implicit bio-political reasoning that can be identified behind notions of ‘epistemic sovereignty’ that have emerged in the analysis of governance structures in the information age. Elden further discusses how territories in this context have become “more than merely land, but a rendering of the emergent concept of ‘space’ as a political category: owned, distributed, mapped, calculated, bordered and controlled” [400, p.578]. The acquisition and purposeful usage of data or ‘calculation’ was not “...merely a means to address a physical property, but a political strategy” [400, p.571].

In times where great value is placed on numbers and statistics, extended control over digital data might represent a powerful tool for Greenlanders to proof and underline their autonomy as external actors make continuous efforts to incorporate the strategic and economic wealth into their spheres of influence, treating the people as a by-product. In order to avoid further Trumpian incorporation attempts, it thus appears beneficial to Greenland to work towards taking control over its own data but also general information flows. A significant step into this direction was marked by the Greenlandic-Estonian UXP cooperation, Pitu.

However, until greater sovereignty of Greenlandic data has been achieved, it is also important to look at the content and the dynamics of data and information flows. While data might be managed in Copenhagen or elsewhere, it remains the citizens’ decision to decide what information and content they entrust or not to the digital networks in place and what role and significance they aim and can assign to these digital structures. The next section will therefore focus on conceptual and political meaning of these reflections through the concept of digital citizenship before the next chapter will focus on Greenlanders voices on that matter.

5.6 Securing the Citizen: Self-Determination through Digital Citizenship

Besides the geo-strategic securitisation of Greenlandic territory and autonomy against external claims and influences through the extension of digital infrastructures and Greenlandic data sovereignty, the securitisation of the population's basic needs plays a central role in the two Greenlandic digitalisation strategies. Especially the concept of digital citizenship, brought forward by the 2018-2021 strategy, highlights this approach. Drawing on the theoretical framework of positive security, the objective of digitally extending the capabilities of even remote Greenlandic communities can thereby be seen as an alternative pathway towards increased (internationally perceived and recognised) self-determination and shall be further examined in the following sections.

The digitalisation strategies strong focus on the details on civic empowerment through digital means thus do not indicate the aim to securitise Greenlandic statehood in 'classic' realist terms. Despite the Internet's transgressive nature, the strategies intent to bring Greenland's varied societal challenges into the picture, tethering living and educational standards in an unprecedented way to future economic opportunities within the global digital sphere. The second strategy accordingly accentuates the fundamental, if not vital importance of quick adaptation to international digital standards: "Those who are unable to follow the digital development, often do not survive" [3]. It can therefore be argued that Greenland's digitalisation objectives can be seen, besides tourism, resource exploitation as well as the traditional fisheries sector and the Danish block grant as a new and in-development fourth pillar in the country's current economic realignment and nation-building process that incorporates a strong social component.

Greenland's digitalisation strategies thus do not solely single out Greenland's weak economy in the attempt to secure Greenlandic autonomy. Rather, they stand out with a topical focus on Greenland's isolation and remoteness – two widely ascribed attributes of the Arctic country that stand in clear contrast to what the strategies appeal to – digital hyper-connectivity. Overcoming both local as well as global isolation lies thus at the core of both strategies and is addressed on two levels that shall be looked at in the following two sub-sections: the first concerns mainly practical aspects of improved human security through digital connectivity (access to, use and availability of services, information etc.).

5.6.1 Freedom to Stay, Freedom to Move: Positive Security and Digital Isolation

Many of the ambitions outlined in the Greenlandic digitalisation strategies can be understood through the lens of positive security which, according to McSweeney, aims to create “secure spaces, building capacities and capabilities“ [26, p.125]. Promoting the facilitation of democratic dialogue, improved and self-controlled information flows through better digital connectivity, the Greenlandic digitalisation strategies provide a new, comprehensive prospect for a modern Greenlandic society. The strong topical focus on more inclusive democratic practices in conjunction with references to a consolidation of Greenlandic culture and autonomy suggest a more distinct bottom-up approach as foundation for future investments and developments in Greenland’s digitalisation process. The digital sphere is thus framed as a public sphere able to provide “routinised care for everyday, human needs” [32, p.842]. Facilitated exchange of knowledge and information through digital platforms might thereby help individuals to create, express and promote their respective values and identities, shaping the broader discourse of Greenlandic independence.

The attempt to counteract digital and consequential social isolation by providing all of Greenland with the same digital connectivity and thus same opportunities to access digital services shows how the two policy papers place the interconnectedness between ‘remoteness’/social isolation and some of the widespread social and economic issues at the heart of the country’s societal reformation. The link between social and digital isolation has been looked at in previous research, especially in connection with marginalised communities such as the elderly or immigrants [401]. While not negating the importance of physical encounters for civic participation or mental well-being purposes, the value of digital connectivity for increased social inclusion has been highlighted in this context. Lambert accordingly underlines the need to “discover more nuanced, contextual, multifaceted understanding of public sociality which move beyond the limited dichotomy [of private intimacy or public community]” [165, p.28].

In the case of Greenland, social isolation has been linked to challenges in (mental) health, individual development but also the consequential problems that part of the Greenlandic population has been dealing with such as alcoholism, suicide, domestic violence or child abuse. Addressing these issues as part of a comprehensive digitalisation strategy speaks for a consideration of social issues in the context of Greenland’s future from part of GoG.

5.6.2 Trust in Digital Services

Previous sections have illustrated how Greenland’s advancing digitalisation may impact upon the securitisation of the country’s self-determination, focusing on infrastructure and data sovereignty as decisive bottlenecks. As this work is exploring aspects of individual senses of security and capabilities in this context, an aspect crucial both at the individual and the national level is explored in this section: trust. The concept of trust has been widely addressed within the HCI literature as a determining factor regarding an individual’s engagement with digital technology as central with regard to the successful implementation of novel socio-technical systems [402, 403].⁹ Varadharajan describes trust as one element within an individual’s belief system, capturing “an entity’s honesty, competence, reliability, and availability within the context of interacting and cooperating in social and technical settings” [405, p.1]. Coles-Kemp et al. [404] highlight that “much usable security research takes a psychological position on trust, one where trust is a rational choice – a decision – rather than a social construction” [404, p.2]. Yet, the authors also note that the normative assumptions that usually underlie these choices are less transparent in a digital space. Mistrust and trust have been identified as central with regard to the successful implementation of novel socio-technical systems [402, 403]. Trust plays a specific role in the Greenlandic context. The tight social networks within the local communities, on the one hand, and the collective memory of misused trust from colonial times on the other are two elements likely to not only affect experiences of trust and mistrust on the individual level but may also influence how the envisioned digitalisation policies are supported by the Greenlandic population more broadly.

Case studies within HCI and ICT4D literature that have looked at digitalisation efforts in other small states or rural community settings have underlined the central significance of trust in shaping the integration of digital technologies in the communities’ everyday practices. Jang et al., looking at rural communities in the Philippines, emphasise that the trust which underlies social interactions within the community contributes to facilitate the collaborative shaping of socio-technical systems and thereby also “the movement of resources and expertise” [402, p.2]. The concept of trust thereby appears to be closely linked with senses of personal security, enabling emancipatory practices of co-design.

In Greenland, local networks of belonging have traditionally had a strong influence on infor-

⁹Definitions of the concept of trust vary considerably across different disciplines. The literature on trust in this work mainly focuses on concepts of trust that have been discussed in the security literature that is relevant to the present work [404].

mation dissemination across the country's different regions [73]. One example thereof is the phenomenon locally known as *Kamik-Posten*. Using the term for the traditional Inuit boots made of, *inter alia* sealskin, Kamik-Posten represents the idea of a piece of news or information, often falling within the category of "gossip", travelling quickly from one person/family/settlement to another. A GoG official reflects in this context on the way in which such established customs might impact upon peoples' interaction with novel digital services and the individual's associated sense of security:

"We cannot digitise a society without making sure that people are actually feeling safe about what are we going to do with their data [...] we do have those smaller communities, so I could imagine that people are on the one hand, they are used to their neighbours knowing exactly what they are doing and what their relatives were doing in another town because everybody sort of knows each other, so I think that should actually make people more relaxed so if your next-door neighbours actually know what I am doing then who cares about what the government, what they are doing about my data. But it could also be that we could actually encounter resistance because people are fed up with the fact that in your private life – everybody seems to know everything. It is difficult to keep a secret in Greenland. [...] So we might experience people resisting the digitalisation and the reuse of data." (P13, London)

P13 hence emphasises that the *low integrity and high trust* of the described customary social structures cannot be transferred one-to-one to GoG's digitalisation measures. He further discusses the importance of ensuring that sufficient data protection is guaranteed as administrative processes are being digitalised and centralised, alluding to Greenlandic citizens' trust in a digitalised public sector:

"We would like for the citizens to be able to be served 24/7, whenever you would like to be served by public services, you can access it online. You should only enter data once, you should not be telling the church: "Ok, I am getting married.". And then also the municipality, filling out forms: "Ok, I am married now!". And then you get to – I don't know exactly which governmental office would like to know that you are married but – you get the idea. We would like people to enter data only once and then re-use it across the public sector – but we need to do it in a secure fashion so that people can be confident that we don't start correlating data, this with that, and then profiling the population."(P13, London)

Two participants also discussed that mistrust had previously arisen in remote communities when external measures were being implemented:

“For people who live in remote places it is easier to blame others. All they see is young educated Danish people who come to their villages to make changes and they feel left behind. This is especially frustrating in the area of hunting, because of its importance to the local communities.” (P33, Nuuk)

This reflection shows that there might be a wider distrust with regard to the applicability of externally developed systems which might also affect the increasing centralisation and digitalisation of Greenland’s public sector.

5.7 Concluding Remarks

This chapter has identified and discussed some of the central points of the two recent Greenlandic digitalisation policies, highlighting their far-reaching ambitions with regard to the country’s modernisation process through digital means. Geographical remoteness and social isolation thereby emerged as two major challenges that the country’s digitalisation efforts are supposed to address, if not resolve, on Greenland’s path towards an inclusive and self-determined future. Strong links between the strategies and the political goals of GoG’s governing parties were thus identified, including the progress of political independence, promotion of Greenlandic culture and ensuring equal living standards and the same possibilities to execute democratic rights and freedoms in all of Greenland, irrespective of geographical or social boundaries.

Containing approaches towards tackling various social, economic and political issues are facing the country, Greenland’s digitalisation policies diverge from the otherwise predominant focus on (inter)national security and sovereignty protection against external threats to local statehood-formation (through e.g. persisting Danish influence or Chinese investors). On the contrary, the policies appear to convey a picture of positive security as described by e.g. Roe [27], enabling citizens to circumvent their everyday geographical and social limitations and outdated misconceptions by becoming an integral part of the global digital networks that shape the political and cultural narratives around Greenlandic identity-formation. The notion of self-determination thereby stretches beyond political autonomy and exclusive sub-surface exploitation rights and includes aspects of data sovereignty [187] and the re-appropriation of information flows. GoG thereby not only emerges as a provider of human security by offering

access to the “human right” to access the Internet and thus to spaces where Greenlandic identity and ontological security can be experienced and shaped.

However, recent projects to expand Greenland’s infrastructure as well as the lack of critical detail in the strategies have not been indicative of the political prioritisation of advancing Greenland’s digitalisation. The resulting persisting high prices for Internet connectivity and access issues that certain parts of the population are experiencing also suggest that the status of being a ‘digital society’, a term introduced in the second digitalisation strategy, has not yet been reached. In this context, the suggested advanced protection of Greenlandic individuals and communities as well as their interests and rights appears to be practically pushed to the background in the light of consolidating economic interest in efficient and secured data processing. The next chapter therefore focuses on the experiences, challenges and benefits of Greenlandic citizens’ usage of digitally enabled networks in the context of modern identity creation in Greenland.

Chapter 6

Digital Divides and Ontological Security in Greenland's Digital Sphere

6.1 Greenlandic Voices: Transforming and Disrupting Digital Citizenship in Greenland

The submarine fibre cable *Greenland Connect* came into operation in 2008 and offered stable and fast Internet connection to great sections of the Greenlandic population for the very first time. As has been shown in the previous chapter, GoG has been working on exploiting the access to global digital networks for political visions regarding Greenland's future in form of, *inter alia* two digitalisation policies. Both strategies aim to integrate digital elements into the fabric of everyday life in all of Greenland, fostering democratic citizenship rights despite the predicament of vast geographical distances. However, the challenges, concerns and adaptation processes following the ambitious integration of digital elements into the everyday practices of remote or hard-to-reach communities remain widely unexplored; both within the specific context of the present research as in the relevant HCI literature more widely. This section thus focuses on the findings that emerged from research engagements with Greenlandic communities in both Denmark and Greenland, investigating, identifying and discussing the limitations and opportunities that the participants experienced when utilising digitally mediated services. It

will further explore the extent to which their practices reflect on their possibilities to actively practice and shape Greenlandic citizenship and identity-formation as the country finds itself at political and cultural cross-roads, solidifying its political, cultural and digital self-determination. The notion of remoteness and isolation will thereby be taken into account as various digital divides will be examined in this context.

The structure along which the findings will be presented reflects some of the key-findings from the digital divide literature. Aspects of geographical location, age, gender as well as socio-economic conditions form an integral part of the digital divide research-field and have been analysed, critiqued and developed in a number of different contexts and case studies e.g. [209, 406]. However, this chapter also highlights to what extent the Greenlandic setting stands out from previous studies through its complex and specific interplay of post-colonial history, traditionally established networks of belonging and modern identity formation practices. Here, it will further be stressed that Greenland, like few other places, is amidst a process of fundamental transition based on the far-reaching and disruptive consequences of an ecological, political and socio-technical transformation. Focusing on the everyday lived-experiences of Greenlanders, this chapter further explores to what extent these transitions are affecting and reproducing themselves at both an individual and group-level. Such transitions also affect how new gender roles are taking shape. Understanding these developments and dynamics contributes to a better understanding of the role of digital citizenship in remote and/or rural communities.

In contrast to the previous chapter, this chapter takes a ground-up approach, looking at four central elements that affect participants' usage of the Internet in everyday settings, thereby revealing four digital divides in Greenland, including: (1) socio-economic factors and materiality (2) location (3) language and (4) gender. Critical security theories including feminist and collective security frameworks are employed to deepen and discuss these findings, identifying the motivations, opportunities and limitations that underlie the participants' lived experiences in the context of Greenland's digitalisation. The chapter further discusses how the impediment or facilitation to use digitally-mediated services shape participants' sense of Greenlandic citizenship thereby affecting experiences of ontological security and hence self-identity.

In the following sections, four aspects that highlight the varying effects of digitalisation on Greenlanders' everyday life practices will be presented. These four elements represent the limitations that Greenlanders' experience in the digital sphere and clearly emerged during the fieldwork and consequential data analysis-process. The corresponding quotes will display how the location, gender, socio-economic and cultural background affected individuals' and groups'

ability to benefit from advancing digitalisation in Greenland.

6.2 Greenlandic Antagonisms and the Digital Divide

The four elements presented and discussed have already been considered and debated both in the context of research on the digital divide and HCI4D/ICT4D in particular [209, 406, 407]. Hussen et al., for instance, discuss the role of the gender digital divide in participatory practices in South Africa’s most disadvantaged areas [408]. Büchi et al.’s study of second level digital divides examined how countries transition from access to usage-based divides [210]. Despite certain similarities to previous studies and findings, the subsequent sections argue that the Greenlandic context offers new insights to the debate around the effects and unintended consequences of digital access and usage imbalances on social equality in remote areas and the creation of everyday counter-narratives and identities in a post-colonial setting. As a place of persisting and growing antagonisms, Greenland stands out among previously conducted studies in a number of ways:

1. Greenlandic society is marked by a high degree of physical immobility. This immobility entails various public policy challenges that arise from social and professional isolation. This impaired ability to move freely is contradictorily paired with strong and tightly-knit social networks that spread across the country and are of central importance to feelings of security and belonging [73].
2. Due to its colonial past and the continuous bonds between Greenland and its former coloniser Denmark, a profound entanglement of indigenous and Western cultures can be found in Greenland. The complexity of the resulting web of traditions, values and norms poses continuous challenges on private and public levels.
3. The local population has been experiencing particularly abrupt ecologically- and technologically-induced changes, affecting most of the established economies and cultural traditions.

The Greenlandic setting thus combines a number of complex yet not unique challenges. The case of Greenlandic digitalisation links to the experiences of many rural or geographically-remote communities that are undergoing fundamental transitions. The present work can thereby contribute to the broadening of the security concept within the broader field of HCI and HCI4D to better understand and design for the unintended social, cultural and gendered implications

of increasing digital technology usage in remote areas. This work thus further builds on the literature that has addressed the centrality of digital technologies for connecting and supporting physically disconnected and marginalised communities, identified in HCI4D and ICT4D scholarship as key to responding to precarity, e.g. [409, 410]. It also highlights the variety of gendered effects of technology-induced disruptions. In light of the research findings, it further suggests the need for more inclusive and sustainable security policies and design solutions which better account for the contextualised security needs of certain (marginalised) population groups, including women in remote communities. It is argued that HCI communities have a critical role to play in this context (as in [5, p.2]).

6.2.1 Socio-Economic Factors, Materiality and Socio-Technical Functionality

As highlighted in Chapter Three, Greenland counts as a high-income country [118]. The yearly gross average income per person in 2018 was DKK 229 058 for people born in Greenland (around GBP 25 933)¹ while it was DKK 499 577 for people born outside of Greenland (around GBP 56 559) [411]. Apart from that, individuals who live in the small and remote settlements would gain less than the average with a yearly gross income of DKK 180 644 (around GBP 20 451), compared to the average town-inhabitant who has a gross average income of DKK 266 494 (around GBP 30 171) [411]. Thus, while salaries are comparable to the average income of an individual in Western and Northern Europe, certain pay gaps can be observed. Moreover, living expenses are relatively high in Greenland as most products are imported from Denmark. Furthermore, and as also explained in Chapter Three, Internet prices lie above the European average [119].

Even though these prices are constantly changing and fluctuating, it became very clear while talking to participants in Nuuk in 2018, that many were affected by high Internet prices while exercising everyday life practices. The high prices, particularly for mobile Internet data, were thus repeatedly brought up during interviews and focus groups by at least 50% of the participants as the major negative aspect of Internet usage in Greenland, e.g.: *“it is very expensive and especially on a mobile phone with data, it is very expensive”* (P28). Several participants explained how the elevated costs for Internet access hindered and limited the ways in which they could benefit from digital services. These limitations would thereby take various

¹At the exchange rate DKK-GBP from December 2019 for all references to gross average incomes in this section.

forms and impact upon other, *analogue* aspects of everyday life. Several participants described, for instance, how they would structure their daily routines around possible Wi-Fi access. A single mother who is currently studying and working in Nuuk described the issue as follows:

“I use [the Internet] all the time actually, when I wake up and eat and when I have time. So I use it a lot. Because I can’t use mobile data, because it is very expensive if you use it, so I use it only at home and work because at work I have Wi-Fi connected. And at home – Wi-Fi. [...] When I use my mobile data, I will pay 500 crowns per months – it is a lot.” (P34, Nuuk)

Another participant shared similar experiences while highlighting the functionality of being able to (de-)activate the mobile data on her phone:

“The mobile data is so expensive so that I always have to turn my mobile data off when I am not at home or at work or in any other ‘Wi-Fi-zone’.” (P37, Nuuk)

The participant further described her adaptation process in more detail:

“We [she and her work-collaborators] use messenger so much ... that means I can reply in an instant. [...] We have that continued correspondence via messenger and there was one [collaborator] where we had an e-mail back and forth and I was like: ‘I can’t do this, we do this via messenger if you want quick answers from me!’ Because I have between 10 and 15 e-mails per day because I also do other projects. So you get lost in an e-mail pile but my messenger is mostly for this project. So every time I get a message, I check it really quick to see if it is something I need to look into and I can give an instant response, even if I’m in a meeting or so. [...] Sometimes they will write me on messenger and when my data is off, I don’t see it until I get home and it stops the process. So my day starts at 7 o’clock in the morning when I wake up and because [some collaborators] are four hours ahead of me, some of them are at work [when I wake up]. So the first thing is that I look at my phone. And then I have five messages and then I have to write back right away because I don’t want to slow down the process of the workflow they are in. So at the end of this project, I have really long days because it starts right when I wake up. And I would just use social media and sometimes it’s really annoying to sit with your phone and they send you seven questions and I’m trying to answer the first on like: ‘Stop stop stop I just woke up, you are writing too fast, I need coffee.’ [...]”

And then when I come home from work ... I continue my correspondence ... Very long days and that is because of social media because they can message me instantly with everything ... ” (P37, Nuuk)

The expenses for the use of mobile data had an effect on how participants would interact with the functionality of their mobile-phones. Individuals in public spaces in Nuuk, including the researcher herself, would activate and de-activate their mobile data whenever entering or leaving one of the scarce spaces that offers (free) Wi-Fi or when, for instance, expecting a specific message. When organising an interview or other activities, people would ask the researcher to give them a missed call to indicate that there was a Facebook or WhatsApp message waiting for them or they would ask to call them directly or warned that delays could occur to avoid misunderstandings. As mobile data would, for the majority of Nuuk's population, only be activated when necessary, there were consequently less mobile phone-usage visible in public spaces, for instance on busses and at bus stops, in cafes or in the street. More visible, however, was the practice of activating and de-activating mobile data. The ability of having easy access to the button that controls the phone's access to mobile data thus played an important role for many, as exemplified by the following quote:

“[Last week], I got a new phone and it is irritating because I can't turn [the mobile data] off. I used to have an iPhone and now it's a Samsung. I just turned [the mobile data] off yesterday! In the weekend, I turned it on to see a small message and then I tried to turn it off again but it don't ... I haven't used Samsung before so it took me all weekend, trying to turn [my mobile data] off.” (P34, Nuuk)

Furthermore, the ability to control the Internet access of certain applications was stressed to be another central functionality, occasionally impacting on communication:

“In Denmark, you have your phone, you have free data – you don't have that up here. You pay by the megabytes. So my phone is never, how do you call it? I just have the essentials that can go online and turn the others off. So normally, I just check it when I get home or at work when I got the Wi-Fi so then we can communicate that way, so that it is not going to be that expensive.” (P27, Nuuk)

Another material aspect that came to the fore was the functionality of mobile phones in cold environments. With temperatures below 0 degrees Celsius, smartphone users would experience a range of technical issues, including battery or touch-screen failures. While sharing advice

on Facebook about covering one's phone in bubble wrap to avoid such incidents, most of the situations which involved the outdoor use of a mobile phone, for instance while being on a hike or on a boat, led to the frustrating experiences of holding an expensive and theoretically potent yet non-functional device. As a mobile phone is often seen as a security-enhancing object, offering the possibility to contact someone in the case of an emergency, these experiences undermined the sense of security usually associated to the presence of mobile phones.

During the time of the fieldwork, the public library in Nuuk was the only space that offered free Wi-Fi to all of its visitors. The researcher would regularly hear rumours regarding other spaces that supposedly had started to offer free Wi-Fi to its visitors. However, these rumours never proved themselves true. When wandering through the library, one would find almost every chair occupied with mainly male individuals using the Internet; either on their private mobile device or on one of the library's computers. After opening hours and despite the low outdoor temperatures, one would find individuals leaning against the outer wall of the library with the aim to continue to use the free Internet access, including unaccompanied minors. One participant expressed a warning towards the researcher regarding the individuals using the Internet at the library. She explained how a recent closure of Nuuk's betting shop had led to the migration of the betting shop's regular visitors who were, according to her, mainly male and unemployed, to the library where they would spend their time to use the free Internet. She said that therefore no woman should ever go to the library on her own.



Figure 6.1: This photo shows individuals who are accessing the free Wi-Fi of the public library in Nuuk outside the library's opening hours (author's own image, May 2018).

Thus, while certain members of the Greenlandic society appeared to clearly struggle to adapt their digital routines to their financial means, some participants argued that Internet access was indispensable for their work or lifestyle in general:

“I don’t want to go back [to Greenland] because it’s too small for me and also due to the Internet. I think when I was home two weeks ago; I used almost DKK 2000 [around GBP 230]² on Tele2. Because I need to be online at all time – because I just need to. Not that I am using it but I got to be online. But it’s very expensive.”
(P5, Denmark)

This quote also displays an important comparative element that manifested itself throughout the fieldwork. As around 60% of the participants had spent a certain amount of time abroad, particularly in Denmark, many people would draw a comparison between the level and prices of digital connectivity in Greenland and Denmark. In this context, the participants in question also highlighted the difficult adaptation process that they had been experiencing when transitioning from their digital habits of one environment to the other. Arguments around *“how much the Internet gives you back”* (P26) and hence the augmented enablement would in those cases outweigh the negative aspects resulting from high Internet prices. Two participants (P23, P28) further underlined the centrality of constant connectivity for their job: *“Obviously I can’t live without it. But it is also because I do a lot of work from my phone.”* (P28). These participants would claim that they generally use mobile data without restrictions. They would, however, further clarify that their employer was covering the costs of their the digital connectivity or that their overall stable economic circumstances would allow them to be better connected.

The comparatively high Internet prices in Nuuk are linked to the expensive Satellite services necessary for some parts of the country. The high costs affect the ways in which people interact and benefit from digital technologies, leading to certain challenges in the efficient integration of digital services and devices in their daily routines. However, despite the high prices it should be noted that Nuuk enjoys good digital connectivity compared to other parts of the country that are not connected to the submarine Internet cable. The effects of varying connectivity across the different regions of the country shall be explored in the following section.

6.2.2 Location – Inter-Regional Bonds, Cooperation and Differences

Within the digital divide literature, geographical location has played a central role in identifying (digitally) disadvantaged communities and to discuss the digitally-induced challenges they are facing. This debate was mainly framed within the context of the so-called urban-rural digital divide which compares access and usage patterns in urbanised agglomerates with experiences

²At the exchange rate DKK-GBP from October 2019

from rural areas [199, 202, 412]. The differences in available and functioning digital and physical infrastructure has often been named as a key element affecting the respective degree of possible connectivity, further contributing to the marginalised position and marginalising experiences of rural communities. The urban-rural divide has in this context also been interpreted as a testimony of the rural areas' dependence on the political interest in investing in the technological development of areas that might only offer limited contributions to a country's economy [125].

The Greenlandic study can offer additional insights into the urban-rural digital divide for several reasons. Firstly, environmental aspects including, for instance, low temperatures, moving icebergs affecting the security and installation of submarine cables, permafrost and other environmental aspects greatly impact upon the expansion of (digital) infrastructures in Greenland. These extreme weather conditions add supplemental stress on the development and implementation of adequate digital solutions but also on the experience and handling of unstable connectivity and feelings of disconnectedness. Secondly, the Greenlandic digitalisation is presented as possible solution to surmount two of Greenland's greatest challenges: factual and experienced isolation. Thereby the continuous (financial) dependence on Danish support and the previously mentioned societal challenges which affect great parts of the country's population could further be addressed.

The extreme Arctic climate has historically hindered the expansion of local infrastructures into the outer districts of the country. Nevertheless, GoG proclaimed access to the Internet as a human right in its 2018 digitalisation strategy, imposing the obligation of infrastructural expansion morally if not legally upon the government and its telecommunications monopoly, TELE-POST [3]. As described in the previous chapter, it is accordingly the explicit goal of the GoG to offer the same opportunities to all of Greenland's population, irrespective of location, and thus including also the settlements located in the harder-to-reach North and the East of the country. However, the fragility of these ambitions unfolded, for example, in January 2019, when a fishing trawler supposedly caused a breach of the submarine Internet cable South of Sisimiut, leaving about 22,000 citizens (thus almost 40% of Greenland's total population) without stable Internet connection for about two months [413]. The ship that had been hired to repair the damage could not access the site earlier due to bad weather conditions and sea ice movements [413]. Shortly after the break had been repaired another two breaches, one North of Sisimiut and another one North of Qatortoq, in the South of the island, affected Greenland's Internet connectivity. People in the affected areas only had Internet access through cellular networks for the duration of the breach. According to participants P22 and P21, the expansion of stable

and cheaper mobile networks through the installation of radio poles along the Western coastline experienced similar delays due to weather obstructions. The local weather and topographical conditions thus affect functional digital connectivity to a higher degree than in other studies on rural communities.

Consequently, relatively strong differences with regard to digital access standards prevail especially between the capital region, where more than one third of the Greenlandic population lives, and the North and East of the island, which are the least populated and least accessible parts of the country with only limited accessibility by land, air and water. However, even though the second strategy builds on the assumption that a lot of the infrastructural problems have been and will be addressed, it remains unclear to what extent the continuous physical and partly digital isolation of these outer districts might have a lasting impact on their societal development and their future place within the fabric of the country. Also the consequences of the unequal connectivity of past years remains understudied. The uncertainty of achieving equal inclusion as presented in the Greenlandic concept of the digital citizen is also expressed in the following statements made by a GoG-official:

“I think a lot of the people who live there would very much like to [have better connectivity] but they know where they live so . . . but some might not quite understand why they cannot get the same [connectivity]. But I think the thing is also that, the public cannot be [content] with everything.” (P30, Nuuk)

Various consequences may materialise from these disparities which might inevitably escalate into discrimination against the people inhabiting the more remote areas of the country. Continuous regional connectivity differences might not only have an influence on the respective communities’ overall access to democratic, societal and economic services and practices but also on their ability to contribute to the digital preservation of their specific sets of knowledge and traditions which form part of the general cultural heritage of Greenland. The following sections will explore how regional differences in connectivity affect three different aspects central to biographic continuity: the maintenance of family bonds, the development and use of inter-regional cooperation as well as the functioning of cultural heritage preservation across the different parts of the country.

6.2.2.1 Maintaining Long-Distance Family Bonds

Even though all of the interviews were conducted in either Copenhagen, Aalborg or Nuuk as well as one in London and one via Skype, the participants reflect a relatively wide diversity with regard to their origin within Greenland. Participant quotes thus include impressions from at least 14 different settlements and towns (see Figure 6.2).

Especially those individuals who had grown up, lived or spent some time outside of Nuuk or Copenhagen/Aalborg shared vivid and personal stories with regard to the effect that connectivity problems have (had) on their maintenance of bonds with family and friends. The effects were varied, however, many explained how the possibility to communicate with their family members who lived in other, and often more remote, parts of the country would be affected. Accordingly P7, who was born in Greenland but who today lives in Denmark explained how unstable communication networks in the North of Greenland have affected her relations with her family there:

“My family lives up North in Greenland [...] and the Internet access is really bad up there and it’s really expensive. So they don’t have the same possibility to go on Facebook and social media all the time because it’s expensive. So I don’t use Facebook that much in my contact with them but my family in Nuuk, the capital – I have a lot of contact [with them] but they pay a lot of money to have Internet access. But yes, it works.” (P7, Denmark)

She further elaborates on the consequences for life in that area following the lack of technological progress and connectivity:

“Especially the further you go up North or East, you don’t have the same possibilities for, for example, technology and the Internet but they still get a glimpse of what’s going on in the world and they are trying to keep up but they can’t. It’s a rough place to live. It’s far between the cities and the cities are small.” (P7, Denmark)

P4, who today lives in Denmark but is originally from the East coast of Greenland, illustrated how Facebook and its messenger service, being primarily text-based, did not pose any loading problems in low bandwidth areas as opposed to picture-based platforms, such as Instagram. She was consequently refraining from using image or video-focused services such as Instagram, YouTube or Skype, in any activity related to her family and friends on the East coast as this would cause communication difficulties. With Facebook, she further explained, all



Figure 6.2: Map of Greenland divided into the four municipalities: Avanaata, Qeqertalik, Qeqqata, Semersooq and Kujalleg. The inhabited National Park as well as the territory of the US American Thule Air Base are also marked on the map. The hue of the colour indicates how well a municipality was represented in the data. (author's own map, created using the software *carto*).

the information, services and contacts she needed were in one place, making interactions and information access easy and care-free.³ Facebook was thus seen to be more 'reliable', leading

³In 2015, Facebook launched a 'lite' version of their service to make the app usable even in areas with weak digital infrastructures [414]. This app was not brought up in any interviews or focus groups and it is thus not

to less ‘frustrations’ and also as more ‘practical’ as all functionalities were accumulated in one single digital space (P4).

Difficulties to stay in contact with family members, however, did not only affect those who had moved to Denmark. Also people who had relocated within Greenland reported similar challenges. As an increasing number of young people are moving to either bigger towns within Greenland or abroad for, e.g. better education or career prospects, many individuals are becoming increasingly reliant on digital communication services to uphold their relational bonds with people in their home settlements. P34 has lived in Nuuk for about 12 years. She moved for both personal but also educational reasons and explained that due to the high prices for travels within the country she would rather spend the same amount of money to go to Denmark and visit Europe than to spend it on a ticket to her home-town. Many Greenlanders find themselves confronted with similar choices. The ability to regularly communicate with family members who live in a more remote part of the country has therefore been gaining in importance. During the interview, P34 expressed various frustrations which resulted from the slow and unstable Internet connection that has had a disturbing effect on the contact with her family in the North of the country:

“Yes, [it affects me] because our family lives in [a town in Northern Greenland] and my friends. So I write to them every day to see what they are doing. Everyday. [...] We don’t talk, we write mostly. So when I write to them, it is a little slow for them. Because it is not really fast – the Internet there. So when I write to them I usually wait five minutes until they answer. On Facebook – Skype does not really work because it is really slow, so it is gonna like – stop. But in the smartphone we have tried to facetime but [the image] is like freezing as well so it is a little bit irritating. But we can talk to them. I don’t know, it is a little bit – not really good. How do you say it? Because I want to see how they are doing but I can’t really see very much because the connection is so slow. Because they try to show how the family is doing but they need to [describe everything]: “This is him and this is him.” But we can’t really see them! The voice is OK but the picture is freezing every second. [...] We can’t see how they are doing. We just found out my cousin has a daughter and I did not know it – [...] I did not know that because they don’t have Internet, they don’t post a lot. But it has been 10 years since I last visit them.”

(P34, Nuuk)

clear whether ‘Facebook Lite’ is in use in Greenland.

P34 further stressed the importance of visual contact for meaningful and efficient exchanges and conversation. The lack of visual input and interactions was for her resulting in frustrating experiences of isolation and alienation from her family. Similar experiences of social isolation were thus brought up in various conversations in which the participant would associate Greenland's fragmented digital landscape with negative experiences. P21 (see Figure 6.3) who grew up on Greenland's East Coast also highlighted the importance of but also the difficulties associated with using Facebook to stay in touch with her family and friends in her hometown. Within HCI scholarship, the concept of isolation is generally equated with involuntary social exclusion [37], stemming from "issues of accessibility, functionality and control" [38, p.323]. The physical and digital disconnection described by e.g. P34 and P7 increased participants' sense of being socially isolated. Their sense of security also often relied on knowing that their family and friends were 'healthy', 'happy' or 'working', which was not always possible due to limited Internet access. The notion of social isolation was also linked to not being able to provide support for family and friends living in remote areas, which, for many participants meant that they could not contribute to the everyday security of parents, grandparents or other family members.⁴

6.2.2.2 Inter-Regional Cooperation

The difference in the quality of digital networks in the different geographical regions of the country does not only affect the maintenance of private relationships but may also have an impact on professional operations across the different regions. P12 works with digital content creation in Greenland's tourism industry and shared his experiences from a project in the North of Greenland. As his work is completely digitalised, according to current standards within his professional domain, he described the fulfilment of his tasks as dependent on sufficient digital connectivity. When working in the North of Greenland, he was confronted with high prices and long waits for the upload of a single video file. Even though he was theoretically aware of the differences, he was surprised by the practical constraints that he was facing.

As a certain global standard of digital connectivity is pasting itself onto expectations regarding digital connectivity worldwide, anything below this norm might have unanticipated effects on cross-regional co-operation with effects on both project budgets and timelines. Differences in the level of digital connectivity can thereby also have crucial effects on the operational capability within, for instance, the executive branch of a government. Accordingly, Internet might

⁴as in [45, pp.2,6]

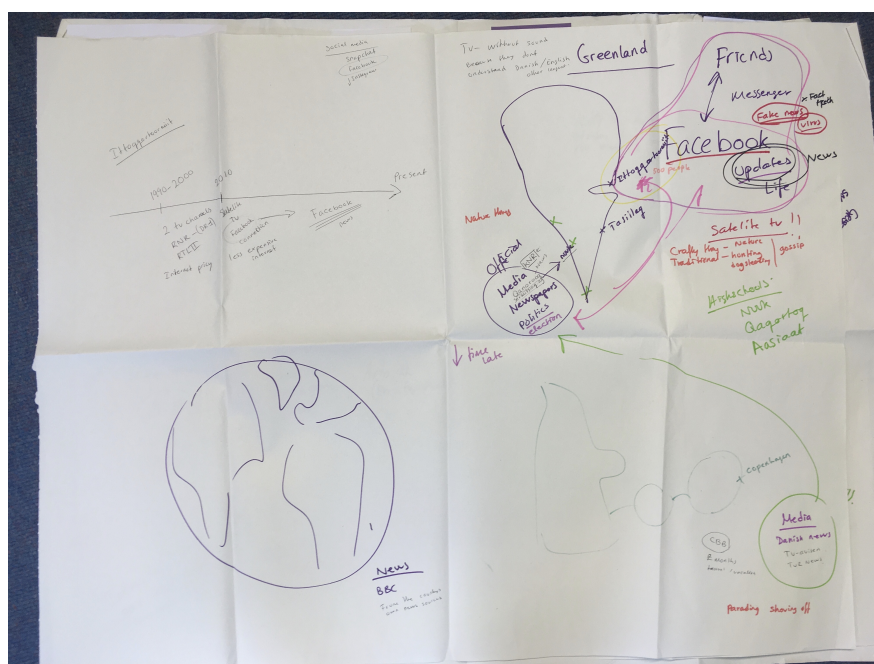


Figure 6.3: This photo shows a map drawn by P21, who grew up on Greenland’s East Coast. In the map, she highlighted the importance of Facebook to stay in contact with people in the East of the country. She further highlighted the strong differences in media consumption, comparing Nuuk with her hometown where fewer TV and Radio channels were receivable as she grew up (author’s own image, June 2018).

be rendering everyday operational practices more timely and less efficient as described here by a GoG official:

“[Difference in connectivity] gives many practical issues, for example with the police. [...] You know, there is a difference – whether you are working at the police department in Nuuk or whether you working in Tasiilaq in East Greenland because in East Greenland it also takes half an hour just to download a document so it’s much more inefficient in some ways. Of course you can say that then you just need to work in a different way.” (P11, Denmark)

P11 thereby emphasises both the challenge of scheduling extra time for adaptation process but also the need to develop more inclusive alternatives that leave no-one excluded.

6.2.2.3 Inter-Regional Cultural Heritage Preservation

It can be argued that the act of sharing and preserving as well as of challenging and developing cultural practices and values has been impeded to a certain degree by Greenland's colonial past. As discussed in Chapter Two, controlling access to information and limiting interactions were essential tools for early colonialists in order to maintain power and control, both in terms of infrastructure and representation [61, 89]. The lasting effects of the resulting selective and externally controlled imaginations of Greenland may be found in the continuous stigmatisation of Greenlanders and representations of Greenlandic everyday life as backward-looking [90, 91] (as in [45, p.7]).

The importance of shaping and contributing to a joint conversation with regard to Greenland's cultural heritage preservation and representation appeared as a central element in many interviews and focus groups, especially against the backdrop of further emancipation from Denmark through cultural re-appropriation. Many participants expressed how conflicted they felt as to the content and the "right" ways in which Greenland's culture should be preserved, performed and represented:

"I don't want to rip the bonds that we have with Denmark but I want us to find our own culture and be proud of it. But I want us to share it and that is the hardest part – because we have this: "We really want to share it – but it's ours!" I don't know if that makes sense? I have talked a lot with my friend, and we talk so much about culture and how to expose Greenlandic culture to the outside world when we have tourists. What message do we want to send? And it is so hard, there is no easy answer to that – because we really want to say: "This is us! And drum-dance and tupilaks – but it is ours!" (P37, Nuuk)

P13 also described the conflict also from a broader angle of designing a functioning Greenlandic society without the current Danish influences which are also reflected in the continuous presence of Danish workforce across various sectors:

"[Independence] is also a difficult topic, I have the advantage of being both Greenlandic and Danish so I can say: 'Ok, I get it!' but I can also say: 'It doesn't make sense!' We are getting back to 50 000 people. What do we need [in terms] of lawyers, doctors, engineers... a lot of professions. How many people do we need in the different professions and how long is it going to take to educate them, if we actually

want to be [on our own]? And everybody else is talking about globalisation so why should we be trying to limit ourselves?” (P13, London)

P18 works within Greenland’s cultural sector and hence criticised a representation and limitation of cultural identity that solely focuses on traditional indigenous elements. She disapproved of representational reductionism as could be seen for instance in the National Museum in Copenhagen which was, according to P18, still telling a very single-sided story about Inuit traditions without *“telling the story about everyday life in Greenland”* and thereby distorting the representation and image of modern Greenland. She stressed: *“If you ask indigenous people to tell their story and it then only becomes about drum-dance, you become complicit [in the distortion] as well [...] in everyday life in Greenland, we don’t have to do drum dancing [to survive].”* (P18)

Digitalisation has been helping to bridge inter-regional communicative gaps to foster a more nuanced and inclusive discussion on Greenland’s cultural heritage and its future, offering an empowering tool for the creation of a more diverse debate on cultural representation. The ways in which improving connectivity is influencing these conversations became very apparent through a challenge faced by a Greenlandic museum as it started to build and renew its online presence:

“So if we were to say something about things like drum dancing, if we try to generalise it too much – oh we will hear it! Because the traditions vary so much from North to South and from East to West, so if would say something like ‘drum dancing was done in this manner in the old days’ we will hear from every single place [through the Internet]: ‘No we never did that! It has to be said like this or phrased like this or worded like this ...’ So that was quite a journey.” (P33, Nuuk)

Such experiences display that there continues to be a certain lack of awareness regarding these regional differences, as well as a lack of understanding on how these relate to each other. Despite the challenge of representing a tradition that had evolved independently in geographically separate areas, this digitally-mediated exchange process described by P33 was welcomed by the museum. Offering an easily and immediately accessible digital platform offered a, for Greenland, previously rare occasion to enter into an inter-regional debate on cultural heritage and practices that had previously been impaired.

The museum official further explained how the museum used to be frequented only by locals from Nuuk and tourists who ‘stumbled’ over it on their walk through the old colonial harbour of

Nuuk. Today, thanks to the expansion of their online representation, the museum had become a nationwide and common resource to gain access to historical and cultural knowledge. P33 explained the significant role of Facebook in this context:

“We are getting more and more interaction with the locals [i.e. Greenlanders] – ONLINE. Mainly through Facebook. Facebook is a huge thing up here [...] everybody uses it here to communicate, it is really the main media here which I had to get used to. But it’s really, really important that people can contact us through Facebook”
(P33, Nuuk)

She further elaborated on how Facebook has helped the museum to start conversations and knowledge exchange with people in Nuuk and beyond, with engagement stretching across different generations:

“ [...] like the kids at high-school for instance, they always have like a thousand questions for us. But they are not comfortable using like an old, regular e-mail – they much rather contact us through Facebook. [...] It’s always the locals asking us all sorts of things ... all these small questions: ‘Oh I have this picture, can you tell me what year it is from?’ You know – stuff like that. We get a lot of like, ah the high-school kids definitely: when they have assignments and thematic days where they are working within some theme, like about our ancestors or the Norse or something like that ... we can definitely see that they had some theme about Second World War this past month because we had ... those inquiries about: ‘Uhm, during the Second World War, like what happened here?’ All very specific questions that were all within the same theme: Greenland during the Second World War. So there is definitely that and then we had all of these inquiries about heirlooms like stuff that has been given within the families for many, many years and sometimes they want to have them valued, what we can’t really help them with and sometimes they want to hear whether they can deliver something to the museum because they have stuff that they deem is old and valuable that they don’t want themselves... But generally a lot of historical questions and it’s really cute because we can tell that like during the weekends, we always have a few more inquiries. So it’s definitely, I can picture people sitting around the table and be like: ‘Yeah when was that? and how did that happen?’ so they end up texting us [on Facebook]. Often with Greenlandic history, it’s often really, really difficult to find the answer on Google.” (P33, Nuuk)

This quote exemplifies to what extent Internet accessibility may have had an impact on existing knowledge and information gaps that have resulted from previous limited accessibility and flow of information within and beyond Greenland. However, based on the differences in connectivity that have already been outlined in this chapter, adaptation was necessary to allow for this kind of exchange to continue, placing additional responsibility on those with better connectivity to adapt their services and work practices to the needs of those in the Greenlandic society who are living with less digital connectivity:

“For instance in East Greenland, in the big city of East Greenland, Tasiilaq, there is not enough Internet to go around. And one thing that we had to do on our Instagram page was actually lowering the quality quite significantly on some of the pictures. Because at some point a kid from Tasiilaq who was over here on visit told me: ‘Oh we can’t access your pictures, they take too long to load so our Instagram goes down.’ And I was like: ‘Oh well, we have to fix that I think!’ Which is an issue you just don’t think about when you are here or when you are in Denmark or in London, it is not just something you consider at all as a thing and then, all of a sudden, it’s an issue that you have to deal with. [...] We are doing history, so that is where our priorities are and then we leave it to somebody else to take great pictures.” (P33, Nuuk)

The expansion of digital connectivity and the improved accessibility of digital information services have enabled new conversations and discussions across different geographical locations of the country. However, different levels of access to stable Internet affect these exchanges and demand adaptation and resilience on both sides until improved technological solutions have been put into operation.

This also displays some of the risks inherent in the differences in digital connectivity. As the last quote has shown, more remotely located communities are still dependent on the awareness and willingness of institutions such as the above-mentioned museum to adapt their services to the attainable bandwidth in more rural areas. Sveinbjörnsdóttir argues that East Greenland is generally underrepresented in the Greenlandic public debate, whether through media outlets or otherwise: “The few things reported from the East come mostly from the police and tend to focus on violence and crime. This fuels old ideas and presumptions, and results in East Greenland’s constant under- and misrepresentation and exclusion from cultural and political spheres both within and outside of Greenland” [112, p.29]. Some of the perceptions on the remote areas



Figure 6.4: Warning-sign for crossing dog-sledges at the periphery of Kangerlussuaq. Dog-sledging can be found North of the Arctic Circle on the West coast and in all settlements on the East coast. Historically, dog-sledges were among the most important means of transportation in Greenland being introduced around 5,000 years ago [415]. Today they mainly serve recreational activities (author's own image, June 2018).

of Greenland were also reflected in participants comments. P5 for instance associated their isolated location with their view on Greenland's political standing within the Danish Kingdom:

“It is people maybe that live on the East coast who don't have that much Internet, who don't have that much life around them, it's them who say: ‘Greenland should stand on its own!’ Those who are uninformed and don't have access to the world. Those are the most nationalistic while for example those from Nuuk, like me, don't see the point in freeing ourselves from Denmark because we don't have the money to do so. It's mainly where you come from in Greenland that's tells about your position.” (P5, Denmark)

Further elaborating on the particularities of everyday life in East Greenland, Sveinbjörnsdóttir also discusses the significance that increasing exposure to digital technologies might have

under given circumstances on the self-perception and representation of the inhabitants of Greenland’s Eastern-most settlements: “Until East Greenlanders have regular access to the Internet and the confidence to engage in online media in meaningful ways, they cannot speak-up for themselves and take part in a nationwide debate about matters related to their area. I believe that depending on others to stand up for them maintains some of the post-colonial circumstances” [112, p.36]. It has hence been argued that these emerging regional difference re-create power inequalities that previously existed between Denmark and Greenland on a national scale.

6.2.3 Language – Everyday Challenges of Navigating a Multilingual (Digital) Space

Greenland’s society is inherently multilingual. Despite previous attempts to (forcefully) unify the population under one language, recent years have witnessed increasing solidification of the parallel usage of Greenlandic, including its different dialects, Danish as well as English.⁵ As observed by the researcher and as also illustrated by the photo 6.5, Greenlandic, English and Danish are today visible in co-existence in most public spaces of Nuuk, Kangerlussuaq and elsewhere.

Today almost all Greenlandic websites and digital public services are available in both Greenlandic and Danish, with a majority of services also including an English option. Multilingualism as well as the fast transition from one language to another when using digitally enabled services has increasingly become the norm when navigating the Greenlandic digital public sphere, creating the impression of an easy (digital) co-existence of all three languages. However, the long shared history between Denmark and Greenland has left distinctive marks on the cultural self-concept of the Greenlandic population [417]. While, for some, Danish remains the language of the coloniser, for other Greenlanders it represents the language of their grandparents, their parents or their partner. Due to these varying personal bonds to both cultures and countries and the different associations linked to each language, most participants said that they were juggling three languages in their daily lives and thus also when using social media or other digitally mediated services. The everyday pressures resulting from this were highlighted by several participants including P23, who explained the small-scale politics involved in the conception of every post she produces on social media:

⁵As mentioned in Chapter Two, Danish was introduced as main language in the 1960s [75] while Greenlandic became the country’s first and only official language with the passing of the SGA in 2009. There have been recent political efforts to strengthen the standing of English in the Greenlandic society to eventually replace Danish as the second language taught in schools [416].

Ilisimatusarfik	Grønlands Universitet	University of Greenland
Inini quleriinni pingajuat	Etage 3	Floor level 3
Ilisimatusarfik	Grønlands Universitet	University of Greenland
Inini quleriinni aappaat	Etage 2	Floor level 2
Ilisimatusarfik	Grønlands Universitet	University of Greenland
Inini quleriinni siulleq	Etage 1	Floor level 1

Figure 6.5: Signage is often bi- or multilingual in Greenland as seen here in the University of Greenland where signs are in Greenlandic, Danish as well as in English (author’s own image, May 2018).

“[On social media I use] Danish. And Greenlandic. But sometimes all three languages because of my network. Also because, my son’s family is from [place name] so I need to write Danish for them to understand and so: mostly Danish, only Danish, mostly Danish and Greenlandic and sometimes only Greenlandic and sometimes all three languages: English, Danish and Greenlandic. Sometimes it is a bit stressful, I need like a quiet moment to post: ‘Ok, it is three languages, I need to translate it ...’ ” (P23, Nuuk)

The increasing accessibility and usability of online dictionaries has thus been perceived as a welcomed development to lower some of the cognitive load associated with navigating this tri- or multilingual set-up. One participant stated that she would usually have her phone in reach

when meeting with friends who had another linguistic background. Given that the meeting space offered the necessary Wi-Fi connection, this access to online dictionaries enabled her to avoid linguistic misunderstandings without interrupting the conversation. It had further also evolved as a central tool at her workplace where everything was handled in at least two languages (P50). Other participants were referring to similar experiences, underlining the difficulties resulting from Greenlandic not being included in many of the leading online translation services such as Google translate:

“Yes, so for example, I cannot write in English. So if I want to write in English I check who in Greenland could translate for me and I would pay them.” (P10, Denmark)

Services and information sources that had not already been translated were hence perceived to be inaccessible and the translation process to be strenuous yet essential, requiring substantial additional resources:

“[My publication will be] in three languages to begin with and that was something I developed with my publisher as part of the contract [...] which is a little bit unusual but that also means that we have a longer period of, what do you call it, editing and developing period, which would usually be a lot shorter for a [project] like this from the deadline to the publishing, but I kind of insisted: ‘I want it in the contract!!’ ” (P37, Nuuk)

While Greenlandic is the sole official language, the standing of Danish as a second language is increasingly challenged by the growing influence and usage of English. This process has been pushed forward by the governing coalition which came into power in 2018 [418]. The advancement of English has also been addressed in the 2018-2021 Digitalisation Strategy. However, adequate educational resources are required to ensure that every individual would be able to successfully manoeuvre this transition and the use of the different languages in (digital) everyday life settings. As pointed out by GoG official P13, these labour-intensive tasks pose a special challenge to Greenland’s government due to the country’s limited population size and the consequential restraints with regard to access to sufficient, diverse and specialised workforce:

“We actually don’t have enough educational material: books [translated] directly from Greenlandic to English – we have very limited materials in that area. And that is actually, as I see it, one of the biggest challenges for Greenland: We are so few

people – with 50.000 people we actually more or less know the four people who are doing school books, so we can say: ‘OK, if those four people are doing something directly from Greenlandic to English, how long is it actually going to take them to build a full curriculum from the youngest to the oldest levels in schools?’ That in itself is going to take time, and then we don’t have educators or teachers that can actually do English [classes] throughout the country.” (P13, London)

Since 2018 schools in remote settlements such as Napasoq and Atammik within the Qeqqata municipality thus started to use a service called *Granny Cloud* to address this lack of skilled English teachers [419]. The service offers free English lessons that are given by volunteers via Skype. Such digital charities are thereby perceived as a possible new pathway to reform the Greenlandic educational landscape. P13 also underlined the function and relevance of casual social media usage for the development of new skills amongst Greenlandic students, particularly in respect to English-language skills:

“Young people outside Nuuk have been limited in their use of YouTube [etc.] to actually see videos, educating themselves, but now they will be able to do that. So I also expect them to adopt the English language through yes, streaming videos, both Netflix and YouTube and things like that. Because it wasn’t properly available previously. That actually also fits really well into the educational strategy where they would like to replace Danish as the first foreign language with English.” (P13, London)

As also described in the previous chapter, being able to provide educational services to all of Greenland also needs to be seen in context with GoG’s broader political goals:

“... this is where digitalisation can help because now we have access to 92% of the population. The remaining 8% are in satellite-served areas, with limited bandwidth and very slow [Internet]. But the other parts of Greenland can now have video: we can have e-learning so we don’t need to have skilled Greenlandic English teachers in each and every town. Now we can have someone centralised actually educating the pupils so in that way we can actually use digitalisation to help achieve independence and as you have probably discovered, independence is a big topic.” (P13, London)

P13 highlighted the strong interconnection between language, education and the country’s political goals.

6.2.3.1 The Contested Role of Language

Apart from the diverse practical challenges that present themselves in the current and future multilingual public and private spaces of Greenlandic society, questions around the different languages' roles and emotional values within Greenlandic society continue to be prominent. While politicians have been debating the replacement of Danish by English as the second language taught in schools [416], individuals, families and communities have been negotiating the significance of their own language proficiency as central identity-marker, impacting upon experiences of inclusion and exclusion [420]. One Danish-speaking participant explained for instance, how his mother had insisted on raising him in Danish only, to increase his chances of getting a better education and hence a well-paid job later on in life. The participant in question, however, described that his inability to communicate in Greenlandic resulted in having to endure mobbing regularly during his childhood which he spent in several smaller settlements. Still today people would react with surprise and disappointment when they found out that he did not speak Greenlandic, which he said, he had gotten used to. Other participants described how they felt excluded from any online activities and conversations that were taking place in Greenlandic. P17, for instance, expressed her appreciation for the opportunity to be able to interact through *likes*, *emojis* or photos to circumvent language-barriers with friends and clients online. P11 summarised the significance of these language divides in the broader political context:

"It is very politically correct actually to do it in different languages I would say. Because when it comes to the debate about independence, I think some people they are, I don't necessarily think they want to have the people divided in the society. But I think in many ways language divides people, Greenlandic and Danish, because it is such a strong symbol of whether you are Greenlandic or whether you are Danish [...] I think English in many ways is much more neutral. Because there is so many feelings pushed into the language, whether it is Greenlandic or whether it is Danish, so I see that some people, they only write in Greenlandic and English. So it's a different variation." (P11, Denmark)

Participant P33 elaborated on the use of different languages in (digital) public engagement: *"Our Facebook is only ever in Greenlandic and Danish and in that specific order which is another aspect that you have to consider when you are working here, you always have to consider what language you are doing it in and in what order. Never ever anything but Greenlandic first."* She further discussed the consequential decision to have all of the museum's explanatory

signage and texts in Greenlandic and English. The texts would be available in other languages, including Danish, on paper leaflets that can be found at the museum's reception, which was not well perceived by some visitors: *"Actually [the text] is available in Danish through these little pamphlets that we have, so that people can carry them around with them which has also been an issue because we have had a few visitors who complained that it was sort of like a gift that the Danish speaking groups could take home with them whereas we did not provide that in Greenlandic or English – so there is no pleasing everyone."* (P33)

Other participants such as P18 described the decision to have all texts in the Greenlandic National Museum in Greenlandic and English and to thus exclude Danish as *political*. In this context, she further highlighted that both texts had been translated from a Danish original and thereby debated whether Greenlandic could ever dominate public life on its own and to what degree it was dependent on a synergy with Danish or English to assure Greenland's visibility and standing, including in the research realm where Danish and English are both seen to open doors. She further expressed concern that a stronger standing of English would harm the conservation of the Greenlandic language. Several other participants expressed similar concerns, for example, whether the loss of Danish as a second language might entail a less accessible Danish job market and more importantly, less opportunities to access the currently free study and training programmes at Danish schools and universities.

6.2.3.2 The Specific Purpose of Each Language

Throughout the interviews, focus groups and ethnographic observations, it not only became clear that Greenland's (digital) public sphere is linguistically diverse. It also became apparent that the three languages create, shape and foster different online communities. Many participants critically assessed the effects of limited mobility and diversity in Nuuk on the development of specific personal interests and stressed, against this background, how the different languages granted them online access to otherwise inaccessible communities. P19 and P12 for instance described their interest in nature photography and how they had been able to share their passion, their work and develop their skills thanks to being part of the respective online community. P34 talked about her interest in painting and how she had been able to explore this interest thanks to various digital networks. P1 is interested in different crafts, including the traditional handicraft of designing and producing traditional costumes. She would use social media to find inspiration and advice.

In conversations and interviews, it was repeatedly noted that especially English allowed

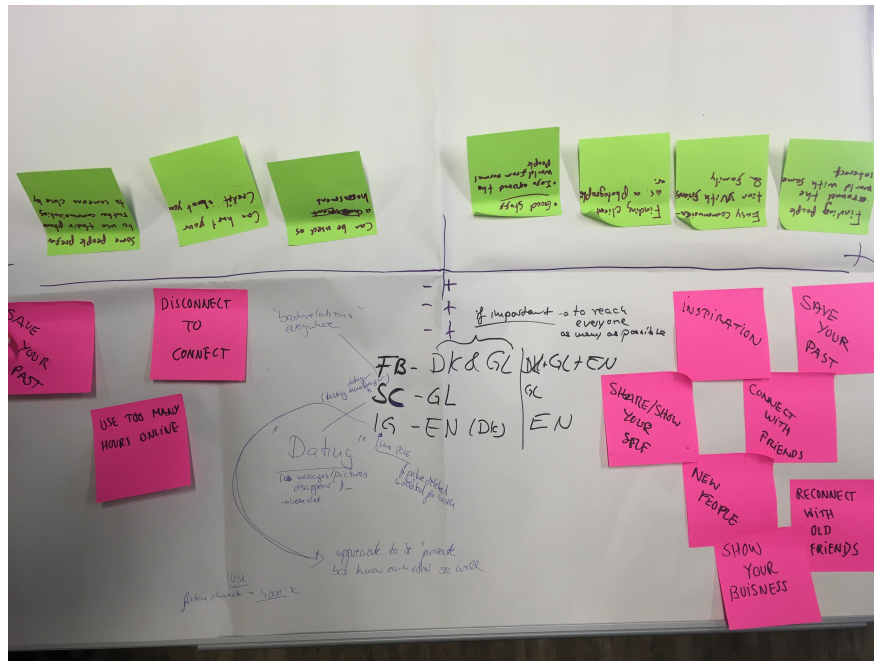


Figure 6.6: This photo shows a “force field” created by P15 and P16. While the focus was on the opportunities and challenges associated with increased digital connectivity the discussion quickly shifted its focus on the different languages the participants were using depending on the social network they were using. They explained how different languages were used across for different purposes on various channels (author’s own image, June 2018).

participants to identify and communicate with other individuals across the globe who would share a specific interest with them. This would primarily be practised on Instagram and English was thus generally referred to as the main language used by participants on that specific platform. Consequently, participants would not only write the captions of their posts in English and utilise some English hashtags but also search English hashtags to find the specific groups (P14, P20). Such practices were explained to enable them to develop their interests, broaden their skills and build relationships around topics of interests that were less common in their direct physical environment.

Facebook, on the contrary, was generally referred to as the digital communication platform that would be used primarily in Greenlandic. Facebook would thus rather serve as a local communication tool and as an alternative source of news on Greenland-specific topics [1, 112]. Many participants noted that they would mainly write in Greenlandic on Facebook, given that they expected their main target audience on the platform to be Greenlandic. It also became apparent

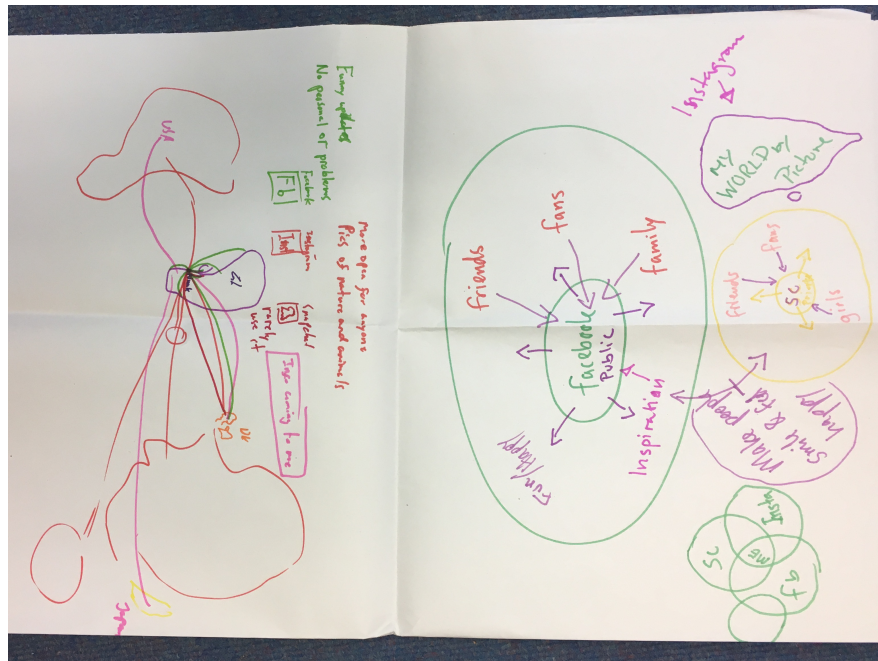


Figure 6.7: These maps of information flows were drawn by the participants P15 and P16, visualising how digital technology helps them to connect with different interest groups (author's own image, June 2018).

that this provided the users with a certain sense of security, knowing that Greenlandic is barely spoken outside the Greenlandic community and not yet translatable through automated translation services such as Google translate. Participants explained how non-Greenlandic speakers would be asked by Facebook whether a post written in Greenlandic should be “translated from *Finnish*” (P16). In the vast digital space of one of the worlds biggest social networks, it appeared that the Greenlandic community had created their own *sub-network*.

Some compared this to a phenomenon called *Kamik-Posten*. Kamik is the name of the traditional Inuit-boot that is usually made out of seal or reindeer skin. Kamik-Posten was the name of a weekly distributed local newspaper containing information about upcoming events and the like. However, most participants were referring to an idiomatic usage of the term, describing the fast, independent and uncontrollable dispersion of information:

“You know, everybody knows someone, who knows someone, who knows someone. So if you post something and you are posting about a person, that person *WILL* know. And even if you don't say the name. People will know. We call it Kamik-Posten.

So we know [something] and go and tell it to the next one. (P5, Denmark)

That way local news would always travel fast across the country, and even faster thanks to Facebook.

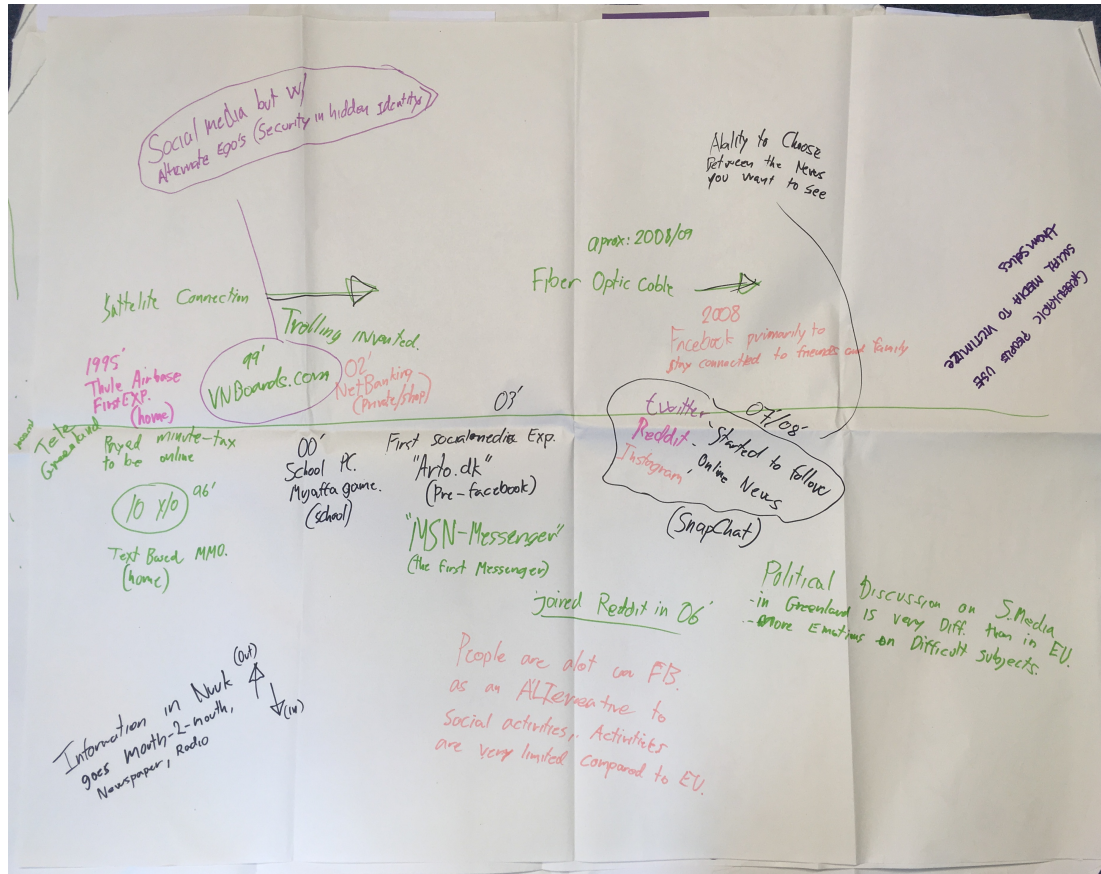


Figure 6.8: Timeline produced with four participants aged between 29 and approximately 55. The participants included P5, P31, P35 and P45 (author's own image, June 2018).

Participants who developed the timeline displayed in Figure 6.8 marked the installation of the Internet cable *Greenland Connect* as a central turning point regarding the role of information technology in Greenland. They agreed that since the installation of the cable it has been about "Facebook, Facebook, Facebook". For the focus group, Facebook had, however, mainly negative connotations as they saw it as a space where emotions and negativity dominated. The group agreed on seeing a causal link between a lack of free-time alternatives and the popularity of Facebook in Greenland. P31 noted that "social activities are very limited compared to EU".

Greenlandic and Danish participants who do not speak Greenlandic, however, rarely noted that Facebook had an enhancing effect on local social networks in Greenland. They rather saw Facebook as a global platform which served them to stay in contact with international friends and family living in other countries.

6.2.4 Gender – Greenlandic Women as Digital Ambassadors?

The digital divide literature discusses gender as one of the primary axes along which inequality is formed and reproduced in the digital realm [244, 408].⁶ Research in that field firstly focused on the identification of gendered differences with regard to technological know-how, usage patterns and overall access to digital technology. However, more recent research has elaborated on these notions, aiming to explore and uncover the underlying, contextual dynamics as well as the wider consequences resulting from continuous discrepancies [244, 408]. In line with the employed theoretical framework, this section will explore how rapidly expanding digitalisation processes and the widespread use of Facebook and other digital technologies are disrupting and transforming gender roles in a changing Greenlandic society. By connecting individual security concerns of Greenlandic women with the broader regional context, the findings highlight how digital technology has created transitory spaces in which collective (in)securities are cultivated, shaped and challenged.

Gender related issues emerged from the data in various contexts, drawing attention to changing gender roles in the Greenlandic society. Several participants discussed the numerous traumatic experiences of women and children in this context, arguing that these had left a considerable mark on the societal consciousness and gender roles. Several participants mentioned growing up without their fathers and debated the broader impact of such collective experiences. P11 brought this into further conversation with the notion of resilience:

“I think resilience is quite interesting in a Greenlandic perspective. I know a lot of people from my generation or younger generations who have been sexually abused as children and who have experienced neglect in one way or another and they have the resilience and they are taking responsibility and they are moving on, of course it does not go for all the [younger] generation but I think I see much more resilience in the younger generation than in the older generation. And I think that the educational levels have been rising through the years. There is a bigger outlook in the younger

⁶This section as well as the following subsections are based on the paper written by Wendt, Jensen and Coles-Kemp [5].

generation and I think these are one of the things that gives a bigger resilience – that you are actually able to take responsibility for your life and that you are able to change the path that you’d been given as a child.” (P11, Denmark)

Besides rising educational levels, the expansion of digital connectivity has also had an effect on the perceived higher level of resilience as described by P11. Previously segregated parts of the Greenlandic society have been brought closer together, unveiling trauma and abuse but also instigating a comprehensive dialogue on possibilities for a more inclusive future and alternative pathways for individuals who have experienced abuse. Both statistics and data collected from the field support the observation that Greenlandic women have assumed a central role in this process. The proportion of women in leadership positions in Greenland is relatively high by global comparison [421]. For example, Greenland has been represented in the Danish parliament exclusively by women since 2011 and there are more women enrolled in higher education programmes than men [422]. P48 brought this trend in connection with the struggle between the conservation of traditional and the promotion of modern identities and values. She argued that the fast transition was exerting social and psychological pressure on parts of society, highlighting the difficulties experienced especially by Greenlandic men in relation to these fast cultural changes and in having to accept that *“women are leading the country”*. She argued that Greenland’s societal frictions could be traced back to this gender gap. According to P48, men needed to be involved more in modern practices to provide them with gender roles that were not solely build on the traditional values of Inuit hunting communities.

This section thus shows how digital technologies have enabled many Greenlandic women to affirm their place in civic participation through the cultivation of wider social support networks and economic independence. The findings highlight the “varied and often invisible roles” that are connected to the underrepresented security needs of women in the wider process of modern Greenlandic nation-building [8, p.209]. These insights are of particular significance against the backdrop of Greenland’s lingering post-colonial and gendered power imbalances, which have been associated with persistent societal challenges that continue to undermine the development of an equal and inclusive Greenlandic society [423, 424]. They further illustrate the unintended, yet, extensive effects of digital technology usage that surface in response to complex local contexts and social structures.

6.2.4.1 The (In)Securities of the Biographical Public

The small size of both the general population and the individual settlements of Greenland was highlighted repeatedly as an aspect which affects (digital) security concerns in their everyday lives. The role of what has been described as a ‘biographical public’ in the literature [165] was central to participants. A biographical public refers to an (online) social network that includes a high percentage of people who collectively share parts of their individual biography. This phenomenon has been found to prompt people to act in line with their social environment’s respective normative expectations. The tightly-knit social networks of the Greenlandic society also affected participants’ perception of social privacy and security.

A female participant (P1) who grew up in one of Greenland’s bigger towns and who now lived in Copenhagen described how her sense of personal security had been affected ever since she had moved to Denmark:

“I do not feel safe when in Denmark, you don’t know the people. Everybody is anonymous. You see people you have never seen before and that you will probably never see again. People can do whatever they want and then just disappear again. In Greenland, you always see the people again, you understand who they are, what they want, where they come from and who their family is.” (P1, Denmark)

Similar statements surfaced throughout the fieldwork and engagements with research participants. In general, Greenland was considered a “safe place” due to the lack of anonymity and the tight support networks of families and connections that spreads across the country.

However, several participants also spoke about the downsides of living in a socially interwoven and geographically isolated society. Several women described how the sense of security gained through familiarity and close-knit community ties did not always translate to or manifest itself in digital contexts. Several female participants in Nuuk (P29, P46, P48, P50) talked about their experiences of having received a high number of unsolicited online friend-requests and messages from (mainly local) men who “*want more*” (P48). They described this phenomenon to be causing them discomfort, affecting their everyday sense of security and trust in their online connections. P46 explained that these experiences were common in Greenland and further highlighted that she used to be “*careless*” when sharing information about herself and her family online. Today, she would no longer feel safe to post anything personal on Facebook, such as, for example: “*home alone with my children tonight*”. She related this directly to the unsolicited and repeated attention she had been receiving online.

These experiences were exclusively shared in one-on-one interviews. One participant also assumed she was the only person affected by this phenomenon. P7 further described how this combination of gendered insecurities and the previously described involuntary and ubiquitous transparency can become encumbering for individuals affected by domestic violence:

“I think that some of it, [the fact that Greenlandic women are moving to Denmark], has to do with relationships, bad relationships, violent relationships with their – husbands. When they don’t have any more possibilities, when they have nowhere to go, when they have to escape, they have to do it far away because everybody knows everybody and it’s a small country. So they have to move and that is why some of them are coming here to Denmark to get a new start.” (P7, Denmark)

A young male participant from Nuuk (P31) further described in a focus group how the Internet had initially brought anonymity to Greenland until Facebook had grown in popularity. Now he felt that he was expected to only act under his real name online and that every post or activity on Facebook would likely have an impact on his offline interactions and life generally. P16 supported this and highlighted: *“You learn to appreciate to be private as people in Nuuk know each other so well”*. Several participants stated that they would refrain from expressing political views online, e.g. on Greenlandic independence or other perceived controversial topics, as they perceived that this could also affect their everyday offline interactions and relations. P13 reflected on how this would affect citizen’s views on the process of digitalising the Greenlandic public sector:

“I could imagine that people are, on the one hand, used to their neighbours knowing exactly what they are doing and what their relatives were doing in another town because everybody sort of knows each other [...] So if your next-door neighbours actually know what I am doing then who cares about what the government is doing about my data. But it could also be that [the government] will encounter resistance because people are fed up with the fact that in your private life everybody seems to know everything, it is difficult to keep a secret in Greenland.” (P13, London)

This narrative points to a growing disconnect between Greenlandic people and the Government of Greenland, which has implemented an accelerated digitalisation process in recent years [3]. As expressed here by P13, extended digital infrastructures within Greenland has led some Greenlanders to increasingly consider the protection of their online presence – precisely because

of the effect that this might have on their offline relations in their local community (as in [5, p.6]).

6.2.4.2 Alternative Income Generation and Economic Independence

The role of digital platforms as facilitators for income generation has been discussed in the context of other HCI and HCI4D studies on digital women empowerment in rural or developing settings across the globe, e.g. [251–253]. Women in these cases studies benefited, for instance, from the spatial and temporal flexibility provided through the use of mobile phones to access information and to become economically active online, irrespective of their location or status within the local community. Even though mobile phones also play an important role in Greenland’s digitalisation process, this research offers a different context than has been addressed in the HCI literature so far. Being listed a high-income country with considerable financial dependency on subsidies from its former coloniser, Denmark, the challenges for Greenland lie primarily in the development of a more sustainable and inclusive economic diversification.

As most products sold in Greenlandic shops and supermarkets are imported from Denmark by sea or air, prices for many everyday products are relatively high and mainly of Danish origin. With Facebook having evolved to be the central digital communications platform in Greenland [1, 131], it has also become a major site for local, small-scale businesses to advertise their products; it has thus become a means for income generation and for bypassing existing economies in place. The “Buy – Sell – Exchange Nuuk” Facebook group was generally mentioned as one of the greatest benefits enabled by better digital connectivity in Greenland. A group of young mothers stated for instance how this group had helped them to quickly and cheaply access the necessary equipment for their newborn babies. This economic isolation and lack of alternatives also affected young entrepreneurs as was discussed by P20 who works with social media: *“It is hard [here] to connect to industries!”* She said that she was often unable to develop the necessary collaborations and had to wait for relevant people to travel to Nuuk to engage in constructive networking activities.

Moreover, several female participants were engaged in the manufacturing of hand-crafted artefacts such as jewellery, clothing or pottery and further examples that were mentioned included, for instance, organic cosmetics. Participants reported how their products had gained initial attention on social media and were now successfully sold all over Greenland and abroad, using mainly Facebook and Instagram. What had started out as a hobby for these women developed into a profitable e-commerce business, over a relatively short period of time. The

design of their products often had a link to the local culture and was seen to respond to a rising global demand for “authentic”, small-scale produced products: *“Because it is unique – very unique. Stuff sells if it has a story”* (P26). P34 and others also talked about their use of YouTube to acquire and develop their creative skills. P48 explained that she could have developed her business more comfortably in Denmark but had decided to stay in Greenland as she felt a responsibility and obligation towards the local community and, especially, towards the younger generation in Greenland. By teaching them her craft in classes offered on a regular basis and in various locations, she hoped to provide them with new skills and new perspectives and, as a result, a positive sense of security. This was explained to be particularly important given the relatively high number of traumatic experiences among young people and families in Greenland (as in [5, p.7]).

6.2.4.3 Women’s Involvement in Shaping Pan-Arctic Inuit Online Representations

Several participants working within the art and culture sector talked about digital technology as a source of inspiration, personal development and a way to get in touch with like-minded individuals and potential collaborative partners. Furthermore, digital technology helped them to spread their work beyond the resource limitations of their Greenland home. According to many of the participants, the small size of the local community rendered their search for suitable collaborative partners often difficult, hindering the development and implementation of cultural projects and initiatives. P37, a young artists who led the creation and publication of a product related to Inuit culture further explained how her collaborative work had been enabled through the Internet. Using Instagram, she had searched Inuit-specific hashtags to identify other artists who specialise in digital art across the Arctic and Europe and thus beyond the geographical boundaries of Nuuk. Their professional interactions had then almost exclusively been carried out through digital communication channels for the duration of the project.

The idea of visualising and sharing old traditions through digital means can also be found in the recent return of women’s Inuit face and hand tattoos across the Arctic region, see Figure 6.9. These have been shared by an increasing number of women across Instagram and Facebook using hashtags such as #inuittattoo or #inuk: *“[the tattoo] tells a story, it brings people together as Inuit, as a community. It is more than just a tattoo, you feel a bond, a sisterhood”* (P20). Another woman described the tattoos as *“part of a whole new cultural regeneration of finding and going back to your roots and saying what were we and what are we.”* She further stressed how this cross-regional emancipatory development had been facilitated through digitalisation: *“And*



Figure 6.9: A woman's hands with traditional Inuit tattoos. The lines across the fingers are linked to the story of the Mother of the Sea, *Sassuma Arnaa*, whose fingers were chopped off and transformed into fish and sea mammals as they fell into the water (photo: participant, included with permission).

the digital age had everything to do with this because suddenly people can see what is going on in Canada and what is going on in Alaska and what is going on with Native Americans and they feel such big part of this and we would not hear about it, if it wasn't for social media and digital articles and everything" (P37) (as in [5, p.8]).

Participants also voiced certain concerns regarding the inclusiveness associated with the tattoos. For instance, P37 discussed feelings of exclusion with regard to identity-formation in Greenland's broader historical and political context that might affect individual feelings of belonging:

"Take these tattoos for an example, people do double-check when they see me because I look so Danish. Some people feel this is only for true Greenlanders. This is the other side of the coin of defining and finding your own identity in this world." (P37, Nuuk)

P33 further highlighted the idealisation of previous generations of Greenlandic women as role models associated with these tattoos which, however, might neglect some of the historic context:

“A great example for instance is the new tradition of tattooing oneself with traditional tattooing which I strongly agree with. I think it’s a wonderful idea but often I heard women, because it’s a women’s tradition, how these great foremothers, how they were a lot more independent and how, you know, women’s rights and stuff like that. And the truth is that women back then and men were living in a very strict society and women were not treated very well back then, nor were men so to speak. Because everybody sort of had to adhere to a certain set of taboo rules but it’s, you know, woven into the idea that women back then were strong and independent and it’s just not true. And then you always have to sort of weigh in on whether, you know, you should take that away from the people. Like tearing that idea of the strong forefather and foremothers away, because what really made these people survive in a country like freaking Greenland was the fact that they were really good at adapting to everything – they were not stuck in their idea of themselves.” (P33, Nuuk)

These narratives illustrate how digital networking tools, social media in particular, are used by Greenlandic women to secure their economic freedom and independence as well as state their cultural identity, bringing to life old traditions and historical points of references through growing digitalisation.

6.2.4.4 Establishing Social Support Networks

Rural areas are often undeserved with regard to health care services and other institutions that can help individuals who are struggling with different mental health issues and lack of general social support [425]. The needs of rural communities in this respect are, however, still less studied and understood than of their urban counterparts and will require further research. Yet, past studies have looked at the correlation between family and peer support and mental health conditions and underlined the importance of the latter, especially in a rural context where the professional equivalents might be lacking [426].

Most female participants, who had moved from smaller towns and settlements to Nuuk or Copenhagen, mentioned how they used Facebook to stay in contact with their friends and family in their respective hometowns. Other women also mentioned that they were using

(closed) Facebook groups intended for Greenlandic women only. They explained how these worked as nation-wide support networks through which information and advice was shared on various topics. Participants reported how these groups helped them to cope with feelings of loneliness and how these groups were used to organise, for instance, offline meet-ups for young mothers (P50). P4 explained that the group she used is exclusively in Greenlandic which would seem to provide group members with an additional feeling of collective security, given that the language is hardly spoken beyond Greenland. She further highlighted that these groups allowed for secrets to be shared with the group administrators.

P48, who had previously lived abroad, noted that social media posts and digital conversations differed from other “conversation cultures” she had experienced in other places. She linked this to the fact there was a stronger focus on personal well-being and private matters online:

“[During her time abroad] it was always about topics like seal hunt, sustainability, healthy food etc. but not here [...] for now it’s more about private life e.g. what we did yesterday, how we feel now, what’s going on. People are more day-to-day living. People just tried to survive not that long ago, so there is no overflow of wealth here.”

(P48, Nuuk)

This focus on inner reflections and the sharing of private matters through social media platforms was not embraced by everyone. P5 was critical of this development and pointed to the effects of using online fora to vent otherwise unexpressed feelings and frustrations:

“Yes, it [Facebook] is [big in Greenland] and I think that’s the reason why I am not using it, because I think they are using it wrong, in the wrong way, in a negative way. They are just making their status about their problems [...] There is only 16 000 [in Nuuk] and if one person posts she got bad service in a shop and hundreds of people sharing it, it’s just very negative [...] It’s more like, making themselves victims [...] I don’t know why – maybe because we don’t talk about it [problems] and it’s easier to just post about it.” (P5, Denmark)

As Facebook had evolved into one of the major sites of information sharing, P1 argued that a certain motivation had evolved in some Greenlandic communities, to be the first person to post if something had happened. She gave the example of someone passing away and a neighbour directly posting about it on Facebook. Consequently, an entire village might know about that person’s death before the respective family had been informed, on the one hand offering quick social support for those affected but on the other intruding into families’ privacy.

Discussion

6.3 Everyday Practices of Digital Citizenship – Opportunities, Motivations and Limitations

Increased access to affordable digital connectivity has been looked at as a potential tool for governments to secure democratic and human rights for marginalised population groups, e.g. in rural or hard-to-reach areas [427]. However, little attention has been paid to security asymmetries that may arise from the disruptive and/or transformative influences of digital technologies in the specific cultural and socio-economic context of geographically remote communities. The present work thus offers valuable insights and contributions to this body of emerging literature. It does so by focusing on identifying, acknowledging and discussing some of the everyday (in)securities Greenland’s inhabitants are facing. It further aims to understand how these (in)securities may link to the role of digital technologies in addressing societal power imbalances. Research findings from this study thus allow for a deeper understanding of the ways in which digitally facilitated spaces can foster insecurities but also function as sites of ground-up collective security practices. Whilst specific to the Greenlandic context, this grounded knowledge can further contribute to the development and implementation of digitalisation policies and design that are more attuned to the everyday lived experiences of people living in remote communities.

The previous sections of this chapter have presented findings from the fieldwork through lenses of the digital divide literature, categorising observations and reoccurring topics into four themes representing both first-level digital divides in the form of connectivity issues (2.2 and 2.1) as well as second-level digital divides that explored a number of consequential usage patterns (2.1, 2.3 and 2.4). These themes emerged from fieldwork data using an inductive, qualitative analysis approach [348]. As the research is based on a grounded ethnographic approach, the concept of shared learning was central to the identification and discussion of the aspects which might disrupt or support everyday practices and the exercise of (digital) citizenship through digital means in the specific setting of Greenland’s digitalisation process.

In the light of the identified everyday (in)securities, the following analysis and discussion of the role and challenges of Greenlandic digital citizenship are not limited to the classic notions of democratic participation, rights and obligations as outlined in Chapter Three. Instead, it draws upon a broadened conceptualisation of citizenship by employing a critical security framework

(e.g. [7, 27]). Thereby the values, motivations and concerns which drive or restrict individuals' and groups' engagement with digital technology to perform and benefit from their citizenship are incorporated. In this context, (digital) citizenship will be seen as the possibility to engage meaningfully in the public life of a defined political entity through predominantly digital means. Based on the presented findings, this section argues that feelings of both belonging and security, related to inter-subjectivity as well as individuality, is central for civic engagement through digital means. The application of this approach is hence essential in three regards:

1. In the specific Greenlandic context, this angle helps to understand how Greenland's digitalisation relates to local identity formation- and broader societal transformation processes.
2. This approach further informs the understanding of the specific issues, opportunities and security concerns that remote communities are facing in the process of digitalisation more generally.
3. Lastly, this approach contributes to a broader conceptualisation of digital security within HCI scholarship.

This section first discusses the opportunities and limitations identified and explained by research participants with regard to Greenland's increasing digitalisation. To shed further light on the associated theme of identity-formation and the participants' motivations to share and create related content through digital means, the role and dynamics of (digital) information flows are explored in more detail. This will lead into further reflections on how this impacts on the creation of *digital safe spaces* and how these function in a gendered context. Finally, this chapter concludes by discussing this analysis in the light of the findings outlined in the precedent policy-centred chapter.

6.3.1 Opportunities, Limitations and Insecurities of Greenland's Digital Citizenship

Throughout the collection and analysis of the findings, it became apparent that participants rarely referred to digitalised public services or processes. The relatively open-ended questions regarding benefits, enablement and challenges brought about by the advancement of digital connectivity and technologies for everyday life practices were predominantly answered through rather personal experiences and anecdotes or in relation to broader societal issues, particularly

with regard to questions of Greenlandic identity formation in a rapidly changing political and ecological environment. Participant experiences thereby bore testimony to a number of both growing insecurities as well as cases of civic empowerment in Greenland's emergent digital sphere.

Participants generally started their interview or focus group by praising the advantages of improved digital connectivity and often edged their way to the limitations or challenges they are facing in their daily usage of digital technology. In focus groups, for instance, limitations were often brought up cautiously towards the end of the session. If an one-on-one interview was being conducted, limitations and challenges were also brought up at a later stage of the conversation or even as an emphatic 'addition' as the researcher started to bring the interview to an end. Limitations were thus generally presented as the downside of a largely positive development. Yet, these downsides of increased digitalisation were described vividly and rich in emotion and personal anecdotes, indicating that such experiences are not negligible and contributing to wide-ranging insecurities in Greenland's digitalisation process.

The various opportunities brought up by the participants mainly revolved around digitalised routines that would help them to escape from or respond to the physical and personal constraints imposed by Greenland's mobility particularities. Especially young people highlighted the diversification of their everyday lives thanks to better Internet access. Advantages in focus groups with predominantly young participants thus generally outweighed the disadvantages brought up and discussed, as can also be seen in Figure 6.10. Being able to purchase items from the major global e-commerce sites, access social media or generally exchange ideas, skills and visions that were previously inaccessible thereby emerged as a central aspect to individual development and as a tool to combat boredom, monotony and stagnation springing from the aforementioned geographical limitations and the limited access of (human) networks and resources in most parts of Greenland.

For some, as will be explored in more detail in the following section, digital connectivity constituted an emancipatory agent, enabling individuals to follow both personal as well as professional ambitions that supported them in achieving more financial and personal autonomy and hence a higher degree of individuality. Participants thus noted enhanced perceived security thanks to (nearly) ubiquitous connectivity on the one hand and augmented self-identity on the other. Being able to follow and develop one's creative inclination accordingly helped participants (e.g. P1, P12, P20, P34) to establish their individual personality and preferred social networks in line with their specific personal interests, drawing upon the extended social capital

of digitalised Greenlandic communities. Hence, both physical threats (P25) as well as threats to mental health were perceived to be contained thanks to the possibility to explore specific interests, ranging from insects (P15) over knitting (P1) to Asian anime (P42), in the language of their own choice and from the comfort of their Greenlandic home. Most of the freedoms that were gained thus centred around separate notions of individualism, including self-efficacy and self-optimisation as well as self-representation. These notions have been widely studied in conjunction with increasing social media usage, based on theories framed by sociologists including Ulrich Beck, Anthony Giddens and Zygmunt Bauman. Common themes that have emerged from the underlying debates around (neo-liberal) individualisation and privatisation emphasise growing insecurities, uncertainties and fluctuations with regard to the available, incoming and processed information and weakening cultural entrenchments [428]. Beck accordingly argues that under these conditions “people are always revising, reworking and reconstructing their personal habits and identities in the light of knowledge about the state and direction of the world” (as seen in [428, p.166]. Bauman further describes this process as “an attempt to probe the many repressed differences of self-hood” testifying “the contested, tensional, critical and, above all, political nature of the process of identity building” [428, p.186]. This growing focus on individual identity formation in response to the described pressures has been both observed through but also linked to an increasing quantity and focus on self-representations on social media [429] as response to the “requirement that [especially young people] construct themselves as entrepreneurs of the self” [430, p.163]. These described individualisation processes can thus be described as arising from both need and opportunity. Offering individual Greenlanders both the possibility to explore and advance various personal interests while also simply integrating them into a globalised knowledge economy in which “identity can be transformed from a given prescribed role into a task, charging each individual with responsibility for performance and the consequences” [431, p.86].

As shown through the presentation of the findings along the lines of the digital divide, it becomes clear that the described opportunities as well as the numerous limitations and challenges experienced by the participants tie into a number of wider societal challenges modern Greenland as well as other post-colonial or remote communities are facing. Despite the enhanced individual freedom, some of the negative unintended consequences of advanced digitalisation included frustrations and insecurities resulting from instances where the promises of digitalisation failed to pair with the needs and expectations of the participants. Especially access issues as well as failing connectivity and failing technology more generally, considering the short lifes-

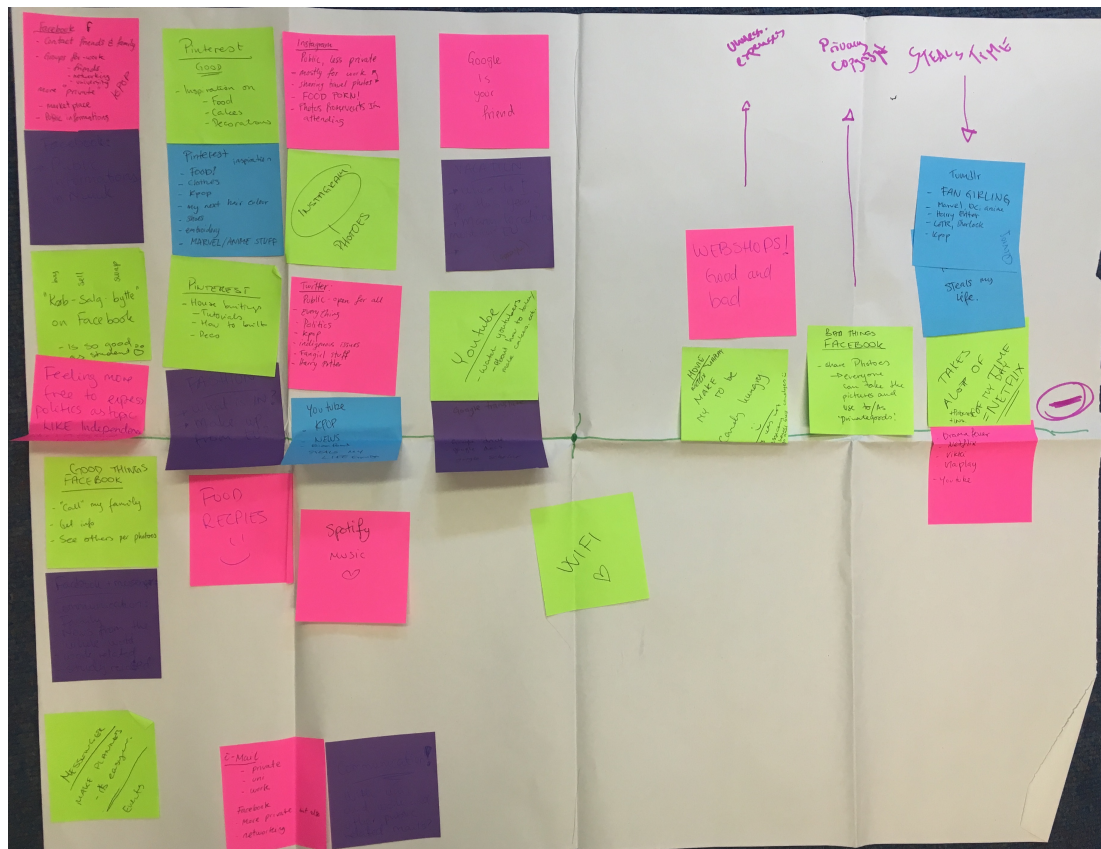


Figure 6.10: This ‘Force Field’ was created with a focus group of four students (one, however, said he just wanted to be present out of interest without feeling obliged to contribute). Like other groups, these participants were generally very enthusiastic about the advantages of improved digital connectivity in Greenland as can be seen by the distribution of post-it notes along the x-axis (author’s own image, May 2018).

pan of smartphone batteries in the cold climate, contributed to such experiences and caused disruptions in various respects, concerning both the private and professional life of the study's participants.

The varying degrees of secure, stable and affordable connectivity across the different parts of the country but also across different places in Nuuk, depending on Wi-Fi-availability, hence emerged as a central issue. Disconnectedness was hence not exclusively an individual but primarily described as a collective experience, affecting the maintenance and development of familial, personal and professional relations across different regions as well as internationally. These frustrations were hence not only described as hindering practices of collective security

through e.g. the impediment of family support networks but also through the obstruction of trans-regional knowledge transfer, hence manipulating an equal involvement of all parts of the population in the modern Greenlandic identity-formation process.

Given the limited access to affordable means of transportation in Greenland, the decision to move from a remote village to one of Greenland's bigger towns would often imply the possibility of not being able to see one's relatives and friends for an extended period of time as neither physical nor digital means would allow for this to materialise. While most participants praised the opportunity to stay in contact with family members across Greenland or even abroad thanks to digital communication platforms, several participants, however, described a growing feeling of disconnectedness emerging from the frustrating experiences of having to deal with slow transmission of (visual) messages, freezing video-images and the resulting misunderstandings (P34, P7, P29, P4). Enablement and constraint would hence often be qualified as two sides of the same coin. The available technology and connectivity would generally set and be perceived as the ultimate boundary to the establishment, maintenance and exploitation of any digitally mediated service and hence also for digitally mediated interaction. Several participants saw, accordingly, technology itself, rather than the government or other stakeholders, as the bottleneck with regard to the further advancement of digital connectivity and hence also autonomy and equal development. There was wide agreement and understanding that the installation of the Internet cable was causing the high Internet costs. For instance, P48, P31, P27 among other conversation partners, expressed their understanding for high costs if a remote place like Greenland was to be connected to the Internet. The cable connecting Greenland with Iceland and Canada was hence named as main cause for high prices. P6 further expressed his hope for Google to solve any cost-related issues: *"I am waiting for Google. They say they will have a free-for-all Wi-Fi. They start in New York City with a phone box, turning it into Wi-Fi. They have to build it, very slow maybe. Google wants to have it free for all. They want to have everything. Greenland, Denmark, Germany, Netherlands – everywhere. They want to have free Wi-Fi"*. These understandings and views indicate that Internet connectivity appears not to be perceived as a 'human right' yet but rather as a luxury commodity, access to which cannot be taken for granted. The perception that Internet connectivity is something exceptional and something that the local population can hardly afford also potentially reflects a derogatory self-view, potentially influenced by the country's colonial past in which the Internet cable has assumed the role of "the material [outcome] of socio-political relationships" [81, p.382]. This mindset is hence reflected in participants' view that they need to adapt to the available tech-

nology rather than making demands on technology being adapted to their specific needs. In the same way that technology has been discussed as being gendered [432], it thus also appears to be placed: designed with the infrastructures and needs of specific, majoritarian population groups in mind and thereby affecting the usability of crucial services for people in more remote areas.

Advanced digitalisation provides many users in Greenland only with conditional agency, enabling individuals to expand their sphere of interaction within the structural boundaries of Greenland's still fragile digital network. This would lead on various occasions to experiences of social isolation and insecurity, requiring participants to adapt their expectations, social interactions and general daily routines to the availability and (dis)functionality of the relevant technology. The identified limitations show that there are struggles that could be anticipated or even avoided through more consideration for remote communities in socio-technical design processes. Beyond the effects that a varying degree of connectivity can have on family and personal relationships, the analysed data also showed the impact on Greenlandic identity formation across different regions. It became apparent that communities in under-served areas either felt excluded from or underrepresented in the advocated narratives (as described by P33) or were perceived as 'remote' and 'backward' by those with better digital connectivity, entrenching a dividing line across the more urban and rural regions of Greenland.

Participant experiences of uneven connectivity across regions and socio-economic strata and the consequential experiences of disconnectedness and social isolation have crucial effects on individuals' and groups' ontological securities. Local communities have been described to be of crucial importance to the value and knowledge systems in indigenous cultures, providing their members with emotional, social and normative guidelines as well as with physical protection in the harsh environment of the Arctic. The described disconnect from family bonds, friends but also places, traditions and other practices risks to exert a considerable impact upon collective identities and hence senses of security against the backdrop of the historical meaning of community in the Arctic. In this context, central identity markers risk being altered and knowledge that has been accumulated and passed on over generations is bound to disappear. However, it is not only the practices and varying degrees of connectivity that are altering identities and insecurities in Greenland. A changing environment makes a lot of the local knowledge and communal security structures obsolete as the Arctic is becoming more accessible and receding sea ice is altering, *inter alia*, hunting traditions. Living in an environment that is in flux and even in danger of complete disappearance adds an existential threat to the traditions and values

of a people for whom “I am located, therefore I am” [433] encapsulates a central aspect of their ontological traditions.

While living conditions as well as societal and value systems are emancipating themselves from the local communities, it does not seem as if GoG nor the Danish government are filling the transpiring void, as it has historically been the case in many emerging states. Following the described observations and findings of an enhanced individualism, new, “imagined communities” [434] are forming in digitally mediated spaces, based not only around origin, family names or traditions but rather around shared interests and wider, often market- or interest-shaped identities, including diets, hobbies and languages. As local environments are changing and facing fundamental threats, digital environments appear to emerge, replacing certain functions.

However, the findings also show that old community structures are being transferred to the digital sphere, transforming and transitioning local interactions in step with the advancing digitalisation. Accordingly, Facebook emerged as an extension of local community dynamics, becoming a place where relevant local information is shared. These practices can thus be argued to cultivate the local languages as well as local social networks. However, also certain limiting factors emerged in this context. Several participants referred to the lack of anonymity on social media platforms, Facebook in particular. While some participants experienced this as a something that provided them with a higher degree of positive security, feeling even stronger connected to their local communities and being able to stay informed about developments in different towns.

Certain participants felt that the continuity of Greenland’s tightly knit social networks into the digital sphere restricted what they could say and do online. Living in a small society where it was already difficult to keep a secret, several participants mentioned how they had to think through posts carefully or completely abstain from certain, controversial discussion topics to escape from the public eye and judgement. According to those participants, any statement, especially of political or very private nature, might affect them in their everyday offline interactions. A lack of mobility and social privacy are widely relatable characteristics of rural communities. Yet, through the analysis of the data emerging from the present study it became clear, that the participants associated experiences of negative and positive security with the social transparency of everyday life in Greenland [27]. While, for some participants, notably young women, the lack of anonymity contributed to perceived security and ‘protection from harm’ in public settings, social transparency did not alleviate disempowering experiences for female participants in the private sphere, including private interactions online. Such experiences

of insecurity were exclusively brought up in one-on-one interview settings, indicating a certain stigma associated with this kind of gendered insecurities as well as the reproduction of gendered power imbalances in digital spaces. The described closed Facebook groups which utilise language and administrators as gatekeepers are illustrative examples of how some Greenlandic women have responded to these unintended gendered consequences of the growing digital landscape in Greenland in particular and in remote areas in general.

6.3.2 Digital Safe Spaces?

Digital Technologies as Emancipatory Agents

The formation of digital “safe spaces” [24] could be claimed to be a prerequisite of reinforcing ontological security in modern societies as more of the social interactions and opinion formations are moving into the digital realm while social interaction in an offline environment are said to be on decline [376]. The creation of such digital spaces might be of even bigger importance in the Greenlandic case where physical spaces are relatively limited and partly hostile due to the specific Arctic climatic conditions but also threatened as a result of global warming. However, also the home as the usual “safe haven” from external threats and a physical space of intersubjectivity has been found in certain cases, in Greenland and elsewhere, to be a space where individuals experience their identity to be threatened rather than to be affirmed or protected. Domestic violence thereby plays a crucial role and as has been outlined in previous chapters, domestic abuse affects a relatively large number of Greenlanders, especially women and children [85].

Yet, Greenland is also a country where the proportion of women in leadership positions in Greenland is relatively high by global comparison [421]. For example, Greenland has been represented in the Danish parliament exclusively by women since 2015 and there are more women enrolled in higher education programmes than men [422]. Yet, studies and statistics on various forms of domestic abuse also indicate a high exposure of children and women to (sexual) violence [435]. Such figures draw a contradictory image of women’s agency and general empowerment dynamics in Greenland and have been linked to the gradual, yet, relatively rapid loss and transformation of previously male-dominated societal traditions; a process that has challenged the values and ideas of Greenlandic (masculine) identity.

However, as a previous section has shown, Greenlandic women have created digital “safe spaces”, also mentioned in [24] in relation to refugees in Sweden, which they proactively utilise

to provide support for each other, as collective security practices. These “safe spaces” are used to both express and share individual insecurities as well as to secure certain basic and determining needs, including access to support networks or economic growth and self-realisation. These actions can be seen as direct responses to deficiencies and concerns experienced in their everyday lives, including for instance a lack of economic diversity or mental health support. As an example, the generation of income through self-developed, digital business models highlights the enabling effect of digital connectivity for women in geographically remote communities like Greenland. It also shows how economic security and emotional security are closely connected and not only provided through government incentives, but through digitally-enabled ground-up developments that nurture and support collective security practices.

In this process of circumventing the persisting shortcomings of their immediate physical environments, the female participants in this study showed how their activities extended beyond the advocacy and development of their individual or Greenlandic women’s civic engagement. By visualising and sharing visions for a modern Greenlandic/Inuit identity through their digitally-enabled (pan-Arctic/global) networks, Greenlandic women are addressing questions of post-colonial representation that cut across a number of regional identity-related questions [6]. They thereby promote a mainly non-divisive yet emancipatory concept of (positive) security enabled through digital means [27]. Inclusion is, for instance, achieved through image-based communication in the case of the re-introduced Inuit tattoo tradition which allows for a sense of collective belonging beyond linguistic and geopolitical boundaries.

6.4 Bridging the Digital Divide

The previous chapter presented and discussed how Greenland’s digitalisation strategies might offer a blueprint for reinforcing the country’s sovereignty while affording its people extended freedoms, enabling enhanced self-determination through improved access to basic services and communication platforms. Placing an unprecedented emphasis on socio-technical elements in the strategic construction of Greenland’s economic and political future, it remained, however, unclear to what extent Greenlanders perceived GoG’s digitalisation measures as an empowering or limiting force in the execution of their everyday practices and hence their ability to perform, realise and benefit from their citizenship. Neglecting the understanding of underlying cultural and social aspects when implementing comprehensive socio-technical reforms has been deemed by HCI and digital civics related researchers to be a continuous shortcoming of such measures

[436, 437]. This chapter provided more context in this regard, focusing on participants' testimonies of digital technology usage in Greenland as either an enabling agent or as a hurdle in their performance of self-determined agency. Drawing on themes derived from the digital divide literature as coined by e.g. [208], both first-level and second-level digital inequalities came to the fore which are in line with observations made in other studies of digitalisation in rural or hard-to-reach communities. Yet, the presented findings indicate a diverse set of motivations, adaptation and resilience strategies that appear to be particular to the Greenlandic context. As discussed in the previous section, these ground-up civic empowerment efforts appear to thrive despite connectivity challenges and limited consideration for the specific needs and security concerns from part of GoG.

These particularities include strong local networks of belonging that affect online trust relationships, technology that is maladjusted to the ontological and epistemological cultures of Inuit people and the specific living conditions in the Arctic as well as considerable regional differences in digital connectivity that hamper nation-wide equal communication at a crucial time for public debate on future directions of the country. While containing the basis for tackling potential future and current legitimisation deficits in Greenland, the findings presented in this chapter indicate that there a number of (in)securities that have formed as unintended consequences of Greenland's digitalisation process in conjunction with other societal transitions. This chapter, however, has also outlined a number of ground-up usage patterns which have contributed to the strengthening civic empowerment and thus collective security. Counteracting social exclusion and post-colonial power imbalances, these activities allow the Greenlandic population to better embrace their rights, opportunities and obligations as citizens and in shaping their modern culture and counteracting outdated imaginations and prejudice.

This work, whilst specific to the Greenlandic context, thus demonstrates the central role of HCI research/ers in nurturing and supporting emancipatory and empowering digital designs and policies in remote and rural areas. This study thus not only contributes to existing HCI scholarship, outlined in the previous chapters, but it also expands it by highlighting the need of design approaches that consider collective security concerns and practices as an integral feature of technology and policy design. Mapped and discussed in Chapter Four, the Greenlandic digitalisation strategies highlight the potential of digital technologies to build an inclusive and democratic society across the dividing lines of physical immobility.

6.5 Concluding Remarks

This chapter has presented some of the insights and knowledge shared by research participants with regard to the challenges and opportunities they encounter in their everyday usage of digital technologies in Greenland. Following a thorough thematic analysis, four general issue areas emerged from the data that demonstrate the beneficial ways in which participants are experiencing and utilising the Internet to perform, realise and benefit from their (digital) Greenlandic citizenship, in the sense of feeling enabled to engage in security-enhancing practices and in the Greenlandic public sphere and civil society more generally and thereby circumventing the imagined and factual remoteness of Greenland.

However, these findings also revealed some of the unintended consequences of advanced digitalisation in Greenland through a number of challenges that the participants presented as hurdles to their everyday practices. The identified interplay of everyday advantages and hurdles can be placed, and was presented along the lines of four associated digital divides that had already been identified by the relevant academic literature in a number of cultural and political contexts, yet with a noticeable focus on Western settings, disregarding the specific problems indigenous or geographically marginalised communities might be facing. A number of aspects, specific to the Greenlandic setting, illustrated that the functioning of digital state services was not the focal point in participants' testimonies and were allocated only limited consideration. On the contrary, digital practices that have been woven into the fabric of individual, personal experiences were in the limelight of most conversations.

This enabled individualisation through digitalisation was generally perceived as a gatekeeper to international as well as local communities and special interest groups that had previously been rather inaccessible to the people in question. These newly found and formed communities thereby appeared to fill an emotional gap that has been forming along with the previously described environmental, political and societal transitions in Greenland, changing and undermining local communities and traditions that had previously provided the social glue within Greenlandic societies. It can hence be claimed that these ground-up efforts for community formation can be seen as central to the identity-formation process in Greenland. Any disruptions to these newly formed networks thus led to frustrations and increased insecurities, undermining the ontological security of those concerned.

Employing a critical security perspective, these feelings of (ontological) security emerged as a driving force in the formation of usage patterns. Understanding the security concerns were

thus deemed central to explore the following dynamics with regard to the ways in which people in Greenland are affected by increasing digital connectivity. Several ground-up practices were identified and thus emphasise that many participants did not necessarily perceive the state and the associated digitalisation policies as provider of everyday security but rather relied on ground-up resources and practices to answer to any individual and collective security concerns.

The infrastructure and technology itself rather than the government appeared to be included in the associated reflections and efforts. Research findings underline that the idea of enablement through digitally-mediated services was rarely directly linked to any efforts or policies on state level but on the possibility to enhance individual self-determination that offers the people in question the freedom to form and shape new communal bonds to address ideological voids as well as societal shortcomings. The idea of citizenship as a national community was hence less visible yet not irrelevant as was also shown by the ways in which Greenlandic women use digital technology to bridge geographical distances and the resulting everyday security challenges, partly through modern representations of Inuit culture. By working against misconceptions and misinformation that appear to linger on from colonial/postcolonial times, digitally enabled networks also emerged as a central platform for inclusive Greenlandic nation-building, offering alternative solutions to some of the country's most pressing issues and creating "safe spaces" for collective security practices. The following chapter will look at these digital representations in more detail.

Chapter 7

Nation-Building and Online Representation in Greenland

7.1 Alternative Voices: Digital Identity-Formation and Representation beyond Greenland

After the political ambitions that underlie Greenland's digitalisation as well as the challenges that present themselves to Greenland's inhabitants in the everyday implementation of these goals have been discussed, this third analytical chapter aims to close the argumentative circle. It does so by looking at the representations which result from the motivations, limitations and divides identified and discussed in Chapter Six and will link these back to the initial nation-building/-branding aims outlined in Chapter Five. Three 'alternative voices' will be in the focus of the present chapter, looking at Greenlandic digitalisation through the eyes of (1) the Greenlandic diaspora in Denmark, (2) the Greenlandic tourism sector and (3) institutions working with the (digital) preservation of Greenland's (intangible) cultural heritage. These three groups emerged during the data collection process as crucial for understanding the effects of ongoing digitalisation processes in the context of the Greenlandic identity debate. The voices of the Greenlandic diaspora in Denmark offer a comparative element and given the size of the Greenlandic community in Denmark it was deemed important to include their viewpoints. The tourism and cultural sectors were included as they emerged as particularly proactive agents in the sphere of digital nation-building/-branding, an area also addressed by the two GAD

strategies discussed in Chapter Five. These three additional perspectives complete the analysis of previous chapters through the discussion of the wider consequences of Greenlandic digitalisation, interrogating the opportunities and challenges arising from previously identified usage patterns for the representation and performance of Greenlandic culture and identity in a more global context.

Given the specific challenges that the Greenlandic population is still facing today with regard to the accessibility and use of digital connectivity, one of this chapter's findings includes the domination of Greenland's online branding and representation by photos and narratives produced by Greenland's tourist agencies and foreign visitors – which often speak to a limited image of Greenlandic and Inuit culture that has been discussed, for example, in the framework of Arctic Orientalism [91]. By adding the perspective of participants who are based in Denmark, the impact resulting from potential misrepresentations on their ontological (in)security is discussed. Lastly, the chapter examines how digitally mediated communication platforms may enable the formation of counter-narratives against the backdrop of the previously presented finding that great proportions of locally-shaped discourses remain in closed online spaces, secluded through *inter alia* language and the extension of tightly knit societal structures into the digital sphere.

7.2 Greenland's Tourism Industry and Nation-Branding: Pioneering User-Generated Content

Climate change and the consequentially melting sea ice has opened the Arctic Ocean for a growing shipping and tourism industry. The construction and expansion of airports in Nuuk, Ilulissat and Qaqortoq that commenced in 2018 is likely to further increase the influx of tourists and hence income into Greenland [438]. Greenland's tourism sector has accordingly been growing over the past years, also evidenced by the fact that the total number of tourists has increased by 18.1% from 2010 to 2019 [439]. After Donald Trump announced his plans to buy Greenland in August 2019, a further unexpected upsurge of touristic interest in Greenland was noted [440]. The phenomenon was compared to the *Iceland-Effect*, referring to the sudden popularity of Iceland as a tourist-destination after the eruption of the volcano Eyjafjallajökull had put the country on the tourism industry's map [441]. Apart from such fluctuations following sudden international media-attention on geographical areas otherwise considered as remote or unknown, various actors in Greenland have been working on the promotion of Greenland as an emerg-

ing tourist destination, relying increasingly on digital means to attract international attention. The associated additional income has been considered a crucial asset in the development of the Greenlandic economy [20].

Representatives of both the national tourism board, (*Visit Greenland*), and the Sermersooq Business Council were interviewed for this project. While these entities are both (partly) publicly funded, there are also several private travel agencies based in and outside of Greenland that specialise in trips to Greenland and the Arctic more generally. However, as this research does not specifically focus on tourism, interactions were limited to the public tourism(-related) boards of Greenland and Nuuk. The decision to include these entities was also based on their distinct presence on digital platforms promoting Greenland and Nuuk respectively as a tourist destination and hence offering important additional insights on questions regarding outwardly-directed nation-branding practices and how these can be placed in the wider context of Greenlandic digitalisation and identity formation. Sermersooq Business Council’s campaign *Colourful Nuuk* and Visit Greenland’s brand *Pioneering Nation* are the focal points of this section.

7.2.1 The National Tourism Board: Branding a ‘Pioneering Nation’

As other national tourism boards, *Visit Greenland* works with a strategy to brand Greenland as a *nation*, focusing on a chosen set of characteristics and images specific to Greenlandic culture and nature. For the period 2016-2019, the Greenlandic Tourism Board had been developing and designing their marketing efforts along the lines of a brand entitled “Pioneering Nation” which is accompanied by the slogan “Be a Pioneer”[442]. The brand is described on the associated website with the following words:

“The Greenlandic nature is powerful and immense. Wind, water and ice have rounded and abraded the country’s ancient mountains and moulded them into majestic Arctic landscapes marked by violent and austere beauty. Natural forces have always dictated how the Greenlandic community has structured itself; a community that is the embodiment of adaptation and flexibility. Nature has also left a clear mark on the local mindset, characterised by openness and action. The mindset of pioneers. ‘Be a Pioneer’ is an invitation to all adventure travellers.” [443]

The document that lays out the strategy in more detail for local businesses that wish to employ this official nation-branding strategy themselves, explains that the brand focuses on

a few “recognisable and acceptable” stories which aim to emphasise the “connection between image, identity and culture, and between how others see us and how we see our own values and norms” [442, p.3]. Both statements along with the overall brand description noted-above clearly underline the objective to place Greenlandic identity as well as the perception and representation thereof at the core of Greenland’s marketing strategy. Targeting these “mental and emotional spaces” [143] through targeted impression management raises the question about the role and potential impact of these branding efforts on the self-image of the Greenlandic people. Visit Greenland’s strategy further emphasises any visual aspects as essential in related branding efforts; “because it is a simple and easy way of conveying brand messages and values” [442, p.7]. The centrality of the employment of such condensed and visualised key-messages in nation-branding has also been widely addressed in the relevant academic literature, highlighting the importance of self-presentation to achieve increased visibility on the global market [145, 148, 149]. These concentrated messages and representations are hence likely to not solely target foreign investors, “raising [Greenland’s] visibility in the whole range of different sectors on the global stage”, but might also aim to “generate national pride internally” [442, p.9]. While mainly drawing the image of Greenland as a place of “unique, overwhelming, or intense experiences” where one can “break and/or move boundaries”, the strategy also repeatedly refers to Greenland as a modern and resilient society with communication technology being presented as a symbol of Greenland’s developmental advancement: “Despite the natural challenges and hardship, Greenlanders have developed a modern society where modern communication and technology are available” [442, p.19]. The strategy further mentions the political goal of achieving full political independence from Denmark, emphasising the political undertones of the outlined marketing efforts. The target group gets largely defined as *adventure tourists*, representing one of two types: either the *active empty nester* or the *young adventurer*, looking for a “new and unexplored destination” and therefore falling into the category of “pioneer”.

P23 who works for Visit Greenland elaborates on the concept of the pioneer while also explaining how this strategy relates to their use of social media to advertise the brand:

“There are three billion worldwide users of social media, and that is where people are right now. We have mainly focused on two platforms: Facebook and Instagram [...] then we use the motto or the ideology of helpful and playful on social media. [...] We have a nation brand called “Pioneering Nation” and then in the brand we have this active motto; a slogan called ‘be a pioneer’. Then we started the hashtag #beapioneer, but it was too generic, too many people [were already using it], and

then afterwards it became #GreenlandPioneer. Also because Greenland is for some people still an unknown destination, maybe far away, remote and maybe you will be the first one in your group of friends or family visiting Greenland and then you will be a pioneer within your circle.” (P2, Nuuk)

Both the strategy document as well as this statement show that remoteness is implicitly included as a central element in the conceptualisation of Greenland as a “unique, overwhelming, or intense” [442] tourist destination or place more generally. Drawing on notions of emptiness and heroism, this strategy is, to a certain extent, resurrecting the spirit of previous exploration missions, introduced in previous chapters. One could further argue that this approach is promoting a certain commodification of Greenland’s remoteness. However, by integrating the resilience of the local population in their construction of the term “pioneer”, the strategy bases the presented heroism on the agency of the local population, thus potentially “[evoking] a sense of solidarity (patriotism) among domestic populations” for which it “[...] must have some links to history and a heroic origin story” as highlighted by Jansen in her discussion of contemporary nation branding approaches [150, p.133].

P23 further explained how their brand aims to promote Greenland as an ‘adventure destination’ but also highlighted how the strategy not only aims to paint an image of Greenland as adventure-playground for activity tourism but to also educate visitors about the Greenlandic people and their way of life:

“Our brand, Pioneering Nation, is divided into some sub-subjects: one being pioneering people, it’s Greenlanders being a pioneering people. Because we have been living in this environment for thousands of years, we need to be a little pioneer to do that. [...] We have been trying to showcase the local people, the Greenlandic people taking portraits of many people and we have it in our photo database. So we also try to show the locals to tourists: ‘Ok, this is how the Greenlandic people look like, that is what they do, that is what they like to do.’ And recently we also came up with a concept on Facebook called Fun-Fact-Friday: fun facts about Greenland or Greenlanders that we are going to post every Friday. Like, my first post was: when taking a cab in smaller towns in Greenland, local people tend to say the person’s name instead of the address: ‘Take me to [the name]!’ – and the driver will be like: ‘Yeah, I know who he is!’ And then he will drive and know where to go. This kind of fun facts, show-casing who are we as a Greenlandic people.” (P23, Nuuk)

Following the criticism of Van Ham [151], that nation branding is turning national identity into “intellectual property”, one can argue that tourist boards generally face the dilemma of wanting to respect local livelihoods, on the one hand, and of transforming these very livelihoods into a *product* for tourists on the other hand. This commercialisation and commodification of native traditions is, in turn, a crucial element for the promotion of local businesses and helps to gain international recognition and visibility for traditional values and norms. In the case of Visit Greenland’s nation brand, it appears that aspects that have become rare commodities elsewhere such as remoteness, disconnectedness and “untamed” forces of “untouched” nature constitute the main pillars of Visit Greenland’s branding effort. While nation branding efforts are generally shaped by relatively simplistic images, it becomes apparent that the described marketing strategy mainly reinforces rather than challenges one-sided representations of Greenland. In the case of small societies such as Greenland, once disseminated towards an international audience, such marketing efforts could dominate over local narratives in the process of modern identity formation.

7.2.2 ‘Colourful Nuuk’: Strengthening Local Entrepreneurship

Nuuk lies in the municipality of Sermersooq. The local business council, Sermersooq Business Council (SBC), has been working “to strengthen the businesses and entrepreneurs of the municipality through business development, consulting services, workshops, and events. SBC facilitates cooperation between companies, educational institutions, and public sector representatives“ [444]. One of their main marketing efforts has thereby been the campaign “Colourful Nuuk” which has been supported by digitalised marketing efforts such as the encouragement to share visual material on social media and to mark it with the corresponding hashtag #ColourfulNuuk. Hence, not only the national tourist board relies on digitally mediated communication platforms such as Facebook or Instagram for the dissemination of their content. P28 from SBC further explained how digitalisation and digitisation have helped their organisation to identify and appeal to the group of tourists who are most likely to invest in a holiday in Nuuk:

“We have gone from having physical ads in magazines to doing all our campaigns through ad words and Facebook ads and stuff like that. So we have digitalised all of it in terms of just being able to track it better and return on investment better. Because we can make it so specific – we have a very small budget so it makes more sense to us. [...] [Before] we could not see the link between the ad and the traffic

on our website. And now we can track it directly, we can see that we have put this much money for example on ad words on fishing in Greenland and now we can see how much exactly that has gained us in visitors, which is really great and we are of course still starting out – so we can sort of test different search words and terms that people are looking for to get more out of our money pretty much. We can see, for example, that we have a really strong target group which is called North America so that’s the United States and Canada mostly. And we can see now that we started doing ad words, that we went from having about 30 % of our website users from that region and now it’s 60%! So it’s really a big change and it makes a difference. [...] We have a much more specific reach on everything that we do. We can see it on our social media that we are getting more of these people [we target] and it just really makes sense.” (P28, Nuuk)

The focus on the North American market is thereby mainly explained through the high costs of visiting Greenland with regard to transport, accommodation and daily expenses. During the one month that the researcher spent in Nuuk, she mainly encountered North American or Scandinavian tourists aged 50+ who did not necessarily appear to fall into the category of adventure tourists in the active sense of the term. This was also reflected in an explanation from the above-mentioned representative:

“Well, it’s sort of a money issue ... I said that we are focusing on Americans, and that is of course ... what we are really looking for is the type of tourist that is willing to pay for their stay here. So it’s the adventure-tourists and we can see a very clear target group that visits us: they are plus 50 years old, they make more [money] than the average, they travel more than the average, they are willing to spend more on their travels and they are very interested in sort of adventure: hiking, fishing ... niches pretty much within nature. But they still have high comfort-levels so they still want a nice bed to sleep in. And when we look at that sort of specification ... then we just see that the American market has a lot of those people. And we can hear that from travel agencies that sell trips to Greenland, that they are interested. And we can see travel agents from the United States are starting to show much more interest in us. So it is a market that is known for being strong financially: they would like to pay, they have a culture where they would like to pay for what they get and they have sort of being a trend of being ‘first movers’. They were first

movers in Iceland and now they sort of want to be first-movers in Greenland. So it sort of works together. When we have a very small marketing budget we focus on one thing and that is that target group.” (P28, Nuuk)

A participant who works in a museum in Nuuk, highlighted why the focus on the target-group described by P28 can, however, also entail certain challenges with regard to the dismantling of outdated ideas and conceptions of Greenland and its population. The participant hence emphasised the need to attract more younger tourists to come and experience Greenland. These younger visitors would, upon their return, be able to share their views on the modern Greenland with their children, friends and families. The “empty nester” target group, on the contrary had, according to the participant in question, already made up their minds about how Greenland and local culture ought to be and would not share any opposing impressions with their peers.

Improved digital infrastructure can thus be seen as a foundation of the tourism sector’s (nation) branding strategies. Digital technologies have in Greenland, as elsewhere, helped to identify specific target groups and to propagate certain images that speak to the expectations and interests of those groups. However, P28 mentioned not only the importance of digital infrastructure but also underlined the role of physical infrastructure for the tourism sector to allow for the digital marketing measures to gain traction as it would enable tourists to find suitable transportation:

“I don’t think that we can get around that the infrastructure will make a big difference. Because it will make it easier to go here, and maybe it will make it cheaper and it will, I mean it will take less time, it will be less time-consuming and I think that is really a good thing. [...] It has to work together. I mean, you can have this really big nice airport but if, you know, people don’t know that you can go there, it is no use. I think it is co-dependent and I also think you can value them opposite each other because they are depending on each other.” (P28, Nuuk)

Limited mobility as a concern was also reflected in the statement of P12 who works within the tourism sector. He stressed his awareness of the fact that most people would never be able to come and experience Greenland due to its location and the high prices for transportation. He therefore noted that he tries to keep those individuals in mind when creating any visual content for social media and other digital outlets as it appeared not only to be his job but also his pride and joy to share the natural beauty of his home country with the world through

digital means. Also other participants, e.g. P25 and P1, mentioned how the Internet was giving them the opportunity to share impressions of Greenlandic landscapes and nature with people who might otherwise never be able to see them given Greenland's remote geographical location and limited accessibility. Digital connectivity thus appeared to be a central means, within the tourism industry and beyond, to share visual representations of Greenland. Both representatives from the tourism sector and individual participants thereby perceived and/or displayed Greenland as something *unique* and *hard-to-reach*.

7.2.2.1 Promoting Disconnectedness and Authenticity

Similar to other sectors worldwide, Greenland's tourism industry has been integrating User-Generated Content (UGC) when building and promoting their product and/or brand [445]. UGC has established itself over the past years as the term which refers to "media content created or produced by the general public rather than by paid professionals and primarily distributed on the Internet" [445, p.16]. By introducing specific hashtags on social media, companies, tourists boards and other organisations can create associations of visual representations with a certain idea, place or product. As illustrated by the two previous sections, both the national as well as the municipal entities in charge of the promotion of Greenland and Nuuk as tourist destinations, have started to rely primarily on digital means to advocate their brand and to reach potential costumers. P28 describes the advantages of using UGC for the specific interests of the SBC as follows:

"So yes, we have actually also made a shift in our content: we went from creating a lot of our content ourselves, for example on Instagram, and now we have actually gone over to sharing more of what other people do, because we get a bigger engagement in it." (P28, Nuuk)

P28 further explained the added value of this kind of advertisement by suggesting a higher degree of *authenticity* while also noting the dependency on digital connectivity for this kind of marketing effort as a potential bottleneck:

"It [UGC] is something that people ask for, I mean it is free marketing for us that they post their pictures to all their friends and is actually the best kind of marketing you can get because it is authentic, it is not a commercial, it is the actual recommendation. So we want that to happen and when there is such bad Internet, that can be really difficult." (P28, Nuuk)

Authenticity has been described as central to the increasing prevalence of UGC [446, 447]. In a cultural tourism context, Zhu [448] describes the concept of authenticity as “... a movement from the front to the back of human interaction that reflects the desires of tourists and consumers for genuine and credible cultural construction and representation in diverse cultural and heritage contexts” [448, pp.1495-1496]. Sharing (visual) impressions of consumers’ lived experiences and thereby appealing to the recognition effect among potential new costumers is perceived as a “removal of distance” between a brand and its costumers [446, p.88]. This is not only seen to encourage further interest in the product in question but also to “contribute to the creation of a strong sense of identification between the brand and the members” [446, p.88]. Elaborating on the predominant conceptualisations of the broadly-defined term of authenticity, Zhu further notes that “authenticity is neither objective nor subjective, but rather performative” [448, p.1496]. Zhu thereby highlights the “embodied practices” that shape experiences and representations of authenticity in UGC [448, pp.1510-1511]. In the Greenlandic context, unstable digital connectivity and the effects it has on everyday practices tend, however, to be rarely included in UGC, as the very act of sharing content on social media conflicts with experiences of digital disconnect. While aimed at constructing close costumer relationships, performativity and the respective branding campaigns appear to set the boundaries to authenticity in UGC.

P28’s concerns regarding the impact of missing digital connectivity on the use of UGC were also shared by Visit Greenland, who at the time of the interview, were working on an informative video that should raise awareness of potential connectivity issues in relation to UGC:

“...that is also a part of this sort of preparation. Because Greenland and Nuuk is a destination you need to prepare for to understand what you are actually getting yourself into and here, for example, we write [and talk] about the Internet. But we write it in a way of course, that we think it will be appealing to people. [...] By coming to Greenland it means that the Internet will be limited: ‘Some places will have Internet – but try to enjoy the nature instead!’ For example ... ‘Enjoy the silence instead – put your phone aside for a second, it’s ok!’ And we also say ‘Ok, while you are on a dog-sledding trip or sailing trip, you can take pictures but save time and just upload pictures when you come back to the hotel.’ It is not like that you can sail, take pictures and post them immediately.” (P23, Nuuk)

P28 mentioned a similar approach towards the challenges that potential digital disconnect

might entail by reflecting on the lack of Internet connectivity as a potential integral part of their product, being perceived as *charming* by some people:

“So we want that [user-generated content] to happen and when there is such bad Internet, that can be really difficult. But as a product, not having internet is actually becoming very appealing to people because then they can actually disconnect. Then they can stand in the middle of nowhere, nobody can get in touch with them, their boss can’t call them, they can’t answer emails, nobody will write an angry comment on Facebook, so that disconnection is becoming a product in itself.” (P28, Nuuk)

This quote also displays the previously alluded to dichotomy between the promoted image of remoteness and closeness to nature combined with the dependency on digital and physical hyperconnectivity to promote that very image of remoteness and virgin environments. It further highlights how the everyday struggles of navigating weak or expansive connectivity described by participants in Chapter Six contrast with the commodification of digital disconnect as a product.

Through the introduction and promotion of #GreenlandPioneer and #ColourfulNuuk which mainly target (potential) tourists, certain ideas and images are dominating the UGC and online representation of Greenland promoted through these channels. P28 elaborated on the most demanded imagery that had emerged:

“Colourful houses and icebergs, yes that is sort of the major cliché about Greenland but people respond very well to it!” (P28, Nuuk)

It became clear that while the two institutions stress their aim to represent what actual everyday life in Nuuk and Greenland looks like, both simultaneously rely on responding to the expectations of their target groups. P23 described their engagement with social media content as follows:

“Hm with social media ... I mean we try to have a wide reach and we try to make people engage with our content and then we can see which content gets most engagement. And it’s like icebergs, and nature and beautiful pictures but also some culture but primarily nature, natural pictures.” (P23, Nuuk)

As mentioned also in the previous section, both institutions also intend to raise awareness of Greenlandic culture beyond the image of colourful houses and majestic icebergs. P23 referred

to a database of photos of locals as well as the fun-fact-Friday initiative. P28 also reflected on the extent to which the local population gets involved in their branding campaign for Nuuk:

“I think generally we get positive feedback. I am not sure that they always know what Colourful Nuuk is, what the purpose of Colourful Nuuk is. Because they are not the target of what we do – it’s the tourists. But of course there is a local engagement in the Colourful Nuuk brand and they are also really a key factor in sharing our content. Because if they see a really great picture of their home city, they will share it. So it’s a good way of getting that local engagement, people want to see their city put in a nice light [...] ” (P28, Nuuk)

P28 further elaborates how local participants can through the use of UGC also contribute to the representation of Nuuk and Greenland on social media:

“Because people from the outside are not interested in seeing a promotional picture or something they feel like is an advert for example on social media. So it is better for us to share a picture that some local has made or a tourist has made and share it also because it also seems more authentic.” (P28, Nuuk)

Fereidouni and Kawa [449] warn that digital transformation within the tourism sector of a country with a colonial history could entail forms of “digital colonialism”. In the Greenlandic, context, the growing tourism industry has been looked at as a way to enhance self-determination through the further development and diversification of the Greenlandic economy. Growing efforts to generate digital content on Greenland and Greenlandic culture might further raise awareness of local culture and concerns on a global scale. However, this section has also shown that while aiming to surmount “distances” between brand and costumer, the rise of UGC appears to also have supported an one-sided image of life in modern Greenland.

7.3 Nuuk’s Museums: Digital (Intangible) Heritage Preservation in Greenland

Other institutions that actively engage with the representation of Greenland both towards tourists but also the local population are the country’s museums and other cultural institutions. Learning more about museums’ engagement and challenges with digital technologies can complement the picture of how digital information sharing practices influence the representation

of everyday Greenlandic culture. There are two major museums in Nuuk: the National Museum, located in the Colonial Harbour and the Nuuk Art Museum, based in a former church located between central Nuuk and the Nuussuaq district. Furthermore, the cultural centre *Katuaq* in the city centre offers changing art exhibitions and other cultural events while the civic house *Ilorput* also occasionally hosts smaller exhibitions and organises different workshops. Representatives of both museums were interviewed for the present work. From their statements it became clear that both museums assume an informative, pedagogical and representative responsibility that extends beyond the boundaries of Nuuk and Greenland. P18 accordingly described their institutional responsibility to be associated with their role in society more widely. Being one of the few museums in Greenland, P18 discussed the unchallenged role that art experts and other very specialised and hence uncontested entities assume in a small society: “*There is always an implied truth in what they write and it will become a truth for later generations.*” P18 thereby points towards a certain lack of checks and balances with regard to the provision of information which may lead to certain power imbalances and shifted representations of “truths” in a small society, such as Greenland. Any public or published statement thus carries a high likelihood of becoming ingrained as a point of reference in the documentation of Greenland.

Greenland’s colonial past is central in that respect, having contributed and still adding to the representation of Greenland within the country and beyond, as has previously been discussed within the context of *Arctic Orientalism*. P18 took up the case of Emanuel A. Petersen and his art work as one example. As described in Chapter Two, Petersen was a Danish painter who went on several journeys to Greenland between the 1920s and the 1940s. These travels inspired his 2000 to 3000 art works that depict various scenes set within Greenlandic landscapes [152]. Many of these paintings were made on commission and brought back to Denmark where they, as one of the few sources of Greenlandic imagery, contributed considerably to the representation of Greenland in Europe. Petersen’s paintings are heavy with romanticised and sentimentalised symbolism and images of peaceful yet impressive landscapes in which people, often Greenlandic women in traditional clothing and with the typical hair-knot, only serve as reference point and “archetype” [152]. P18 highlighted the inherently problematic nature of these paintings’ legacy which appears to carry on down to the present day. P18 accordingly noted the work of Petersen as one reason for “*why we are struggling with the perception of Greenland today*”. Many people would still react positively to the beauty portrayed in Petersen’s work but would rarely question it. She observed that Petersen’s work is therefore also appreciated by the local population who would spend high amounts of money on it, for instance, as witnessed by herself, in the Facebook

vending group. P18 brings this in connection with the humans' tendency to gravitate towards unproblematic beauty and preconceived ideas as path of least resistance leading to psychological consonance.

P18 highlighted how this representation of Greenland through the eyes of the explorer and coloniser continues to influence modern representations of Greenland and could hence also still be found in the Museums of Greenland and Denmark. These institutions would, according to P18, mainly exhibit the things that had been collected and deemed interesting by Arctic expeditions and missionaries and would hence keep their narrative of Greenland alive instead of creating spaces for counter-narratives. Another example that was brought up in this context is the *Tupilak*, a mythical creature that originally served as a revenge-spirit but eventually developed to fulfil mainly protective functions. Kept alive in the oral culture of the Inuit, and occasionally created in secret, using a number of perishable parts, the first Europeans in Greenland requested a representation of the infamous spirit. The Inuit thus carved models into the teeth of whales and other natural materials [450]. P33 described this development as follows:

“Originally, a Tupilak was a demon. [...] In these tiny societies you could not afford for people to become upset with each other ... so you had ways to diffuse a tight situation. ... You would create this horrible little monster using bones and material from a dead animal and then the nature, like rocks and grass and seaweed. And then preferably either a corpse of a young woman or a child - because they tend to be ‘more hysterical’ [...]. Then you would ... create this horrible little monster that was set to ... kill your opponent on your behalf. And that became these little wood and antler-carved things. [...] It has a long history of how small figurines started being made ... then when the adventurers came around and the people who went on these expeditions, so they came around and they were asking about them like: ‘Can you draw this for me?’ And no, they could not draw, so they would illustrate them through these small figurines and then that became the touristy stuff that we sell in some weird manner.” (P33, Nuuk)

The Tupilak became a popular souvenir of the European visitors, brought back home as memento and representation of Greenlandic culture. As underlined by P33, Tupilaks carved in animal teeth and bones, are still among the most popular items in souvenir shops today but can also be found in their carved form at the heart of most exhibitions and artistic representations



Figure 7.1: This showcase in a souvenir shop in Nuuk contains different hand-crafted figurines made out of bone, including a number of Tupilaks on the left and right hand-side *author's own image, May 2018*).

on Greenlandic culture and history. P18 critically stressed how this object, requested by and created for Europeans, has become a symbol of Inuit culture and has become ingrained in the general perception of *“what the real Greenland looks like”* by continuing to *“assign a specific value to Greenland and what Greenland is”*. Besides the fundamental influence of colonists on today's understanding and representation of Greenlandic culture, this further shows how the difficulty of challenging those *pre-digital* portrayals as *“the feeling of confirmation is just so strong”* (P18) despite the variety of stories, opinions and images of Greenland that have emerged through an increasingly inclusive and democratised media and information landscape. Yet, Greenland's representations and tourists' expectations appear to have been formed and influenced by the colonial practices as well as limited and biased information resources of the last decades and centuries. P18 accordingly emphasised the cultural institutions' and art's role to question peoples' ideas rather than choosing the easier path of confirming such preconceived and outdated ideas.

P18 described how it is thus the romanticised view of the foreigner and visitor that still exerts influence today; weighing more than any mundane, ugly and even uninteresting element of actual everyday life in Greenland: *“Life is not post-colonial, it is everyday”* (P18). P33 stressed in this context the lack of understanding of modern Greenlandic history:

“People often have no idea what happened between our great ancestors and now,

many people have clearly forgotten what the 40s and 50s and 60s were all about which is quite critical because that is really when modern Greenland was founded. And a lot of really critical things happened that were, that had a lot of side-effects to them, like when Greenland started to be modernised.” (P33, Nuuk)

Outdated imaginations would also carry more weight than the voices and experiences of Greenland’s population which, in comparison, are assigned only relatively limited attention in the conception of information on and representations of Greenlandic culture and history according to P18. In this context, she mentions the apartment blocks in central Nuuk which are often regarded as Nuuk’s eyesore while representing a critical part of modern Greenlandic history. Rather than integrating these elements, foreigners would today focus on other topics that would fall into their preformed set of relatable interests: for instance Greenlandic independence. She criticises that the strong views on Greenlandic independence that can be found in international media would only speak for a small, radical minority who is creating a narrative of difference rather than similarities, polarising the society rather than bringing people together.

P33 discussed similar points, expounding the problem of the conceptualisation of the ‘real Greenland’ that she encountered regularly in contact with the museum’s visitors, with *real* often referring to a stereotyped idea formed around ancient Inuit traditions. P33 further brought this in connection with the intangibility of great parts of the Greenlandic culture which are currently being digitally mapped in line with UNESCO guidelines [451]:

“Yes, one of the things that we recently put up which has become one of our main things is a list of our intangible cultural heritage stuff. And that has become incredibly important [...] because our ancestors were traditionally an orally-based people. They did not have any writing so we have a lot of intangible cultural heritage: our sagas, our myths, our legends, our traditions, everything from like kayaking to like old weird tales and it’s all very very important that it is being [taken care of].” (P33, Nuuk)

Given that, due to the traditional oral culture and the dispersed local population, most of Greenland’s culture historically evolved as ‘intangible’, encompassing myths, customs and Inuit traditional knowledge that were orally transferred from individual to individual, community to community, generation to generation. It could hence be argued that such oral sources have been and are easier to undermine, alter or fall into oblivion especially as Western methods of knowledge exchange, based predominantly on written and ‘tangible’ sources, has been

dominating in global knowledge and information systems. Any ‘tangible’ counterpart, as the Tupilak-carvings or Petersen’s artwork described by P18, might thus more easily monopolise cultural representations until today. P37 highlighted the need to preserve Greenland’s myths in writing:

“I want people to send me myths and creatures so that we can get those recollected. Because all the collections of the myths were done 100 years ago or at the earliest it was 50 years ago, in the 60s. And we need to keep collecting them because we need to save all the storytelling that we have. Because I grew up with it and everybody grey up with it and people here who say I am not afraid of ghosts are still afraid of ghosts because they know they are hiding in the shadows. You know, we just need to keep that and we just need to keep that alive.” (P37, Nuuk)

P33 compared the conservation of Greenlandic traditions by drawing a comparison with a *whisper game* and explains how these structures have impacted the museum’s learning process as growing parts of the Greenlandic population has Internet access:

“...the issue is: given that Greenland is a very big country and given that people are used to live in small, tiny small societies sometimes even a couple of families bounded together, traditions varied slightly from place to place it’s sort of like the whisper game. Everything changes over time and in some families certain traditions were seen or carried out in a very specific way and then in other places those specific traditions were completely different or other traditions became a thing. So if we were ever to say something about things like drum dancing, if we try to generalise it too much – oh we will hear it! Because the traditions vary so much from North to South and from East to West so if would say something like: ‘Drum dancing was done in this manner in the old days.’ We will hear from every single place: ‘No, we never did that it has to be said like this...or phrased like this...or worded like this...’ So that was quite a journey.” (P33, Nuuk)

Illustrating some of the challenges imposed by the nature of traditional Greenlandic knowledge (exchange), P33 hence also brought up the novel importance of digital technologies in this context as many of the above-mentioned conversations arise as people from different parts of the country are gaining access to the new content, including information from the National Museum in Nuuk. In this context, P33 further noted that improved digital technology has also improved their understanding of their target group’s main interests:

“... We did have no idea why people came. And with social media it's becoming more and more clear what people are coming for and what people are interested in. And what we actually learned just this past year is this: just coming back around to those Norse Vikings, that is one of the things that people are really interested in but that we had very little about. We had like a little exhibition but people are asking for it, people are really wanting to hear more about it and I can quite clearly see that through the social media.” (P33, Nuuk)

Increased digital connectivity has thus not only helped the museum to improve their interaction with the Greenlandic population but also with the museum's visitors. Yet, the insights gained regarding the tourists' interest in the Norse Vikings, also link back to the concerns expressed by P18 in their focus on Greenland's pre-colonial history. However, P33 also related these findings to the pedagogical responsibility of the museum, debating unrealistic expectations and the need to integrate the mundane into modern representations of Greenland:

“I know everybody loves the old traditional Greenland but it's really the colonial and the postcolonial history that I really need out there, that I really really need out there amongst the people. Nobody remembers it anymore, nobody really understands what happened throughout that part of history.” (P33, Nuuk)

P33 linked it not only to the preferences and expectations of the visitors and tourists but also to tendencies and views among the local population:

“A very interesting thing about Greenland is that we are very rooted in our own history – but not the recent history. Because Greenlanders do have a tendency – and I am talking about my own family here – we do have a tendency to be very... we identify very highly with our old ancestors, the Thule people, people who represent ‘the real Greenland’; to the tourists as well. And it's not that strange because it is recent history for us – our great grandfathers and mothers were the ones who lived similar to that so it's not that far off from us [...] a lot of people identify so highly with the idea, our self-interpreted idea of what these people lived like and what these people did, which is not always entirely true.” (P33, Nuuk)

The participant further elaborated on how the lack of accessible and relevant information sources thereby continues to negatively impact upon modern identity formation as it is fuelling the previously described political and cultural dichotomies that have been dominating identity

debates in the country. In this context, she mentions the significant role of social media and digital technologies in addressing certain distortions in the public believe system:

“ [...] and the next thing that happened was that the Greenlandic government decided that the city should be modernised and a lot of the like old settlements should be closed down – but obviously the people who actually did this was the Danish people again. It was Danish carpenters and workers that came to build the modern houses, it was Danish people who came in to the small settlements and closed them down. It was Danish officials that took people from the small settlements and into the big cities and housed them in new housings and that created a lot of friction between the Danish and the Greenlandic people or specifically the other way around. It created friction from the Greenlandic people onto the Danish people and because people have not been properly schooled in this in this country, often our political debates can get quite skewed because we have politicians today that claim: ‘Oh the Danish people did this onto us!’ And I am like: ‘No, they didn’t – we did this onto us, like a very small group of us did this onto us, but it wasn’t the Danish people.’ [...] it’s also why I was so eager to create all these social media pages or profiles when I got here because I thought we need to get our own history out to ourselves it’s so tremendously important and it became very clear to me while I lived in Denmark how important it was for our museum to be out with the people so, yeah that’s why I love my work.” (P33, Nuuk)

It became clear that institutions that work with Greenlandic culture and its representation are confronted with a balancing act: preserving the history and heritage of Greenland while emancipating representations from the *colonial gaze* the past. In light of the associated Greenlandic identity-debates, both institutions appear to assume the role of an educator but also of an intermediary, bringing together different actors and different visions. Reviving forgotten or suppressed parts of both the early and the recent Greenlandic history thereby appears to have been identified as a central task of the cultural entities in question. Increasing digitalisation has been brought forward in this context as a tool to facilitate this process and the re-appropriation of visual cultures.

7.4 Greenlandic Diaspora in Denmark: Misrepresentation and Discrimination

As discussed in both Chapter Two and Four, there is a relatively large Greenlandic community who lives in Denmark [278]. Even though the members of this Greenlandic diaspora make up only about 25 % of the total number of this study’s participants, some clear differences presented themselves in the statements and contributions of the Denmark-based participants that will be presented in this section. These differences concerned varying experiences of digital connectivity effecting the maintenance of familial bonds as well as various reports of lived experiences of discrimination. By adding the input and insights from participants based in Denmark, the impact of potential misrepresentations on ontological (in)security is explored from this diaspora-angle.

The reasons for which research participants had moved to Denmark are manifold. Some had moved for work or studies, others to be closer to relatives who are living in Denmark. A young male participant from the North of Greenland stated that his lack of hunting abilities had made it difficult for him to stay in his community and that he was receiving better medical attention for his chronic stomach pain in Denmark (P9). He was further complaining about the high costs of living in Greenland and the inability of the Greenlandic government to change these conditions. Life in Denmark was thus generally described as “easier” in many regards, offering more variety for personal development as well as more anonymity for those who wanted to escape the tight social networks of Greenland. A young woman who had moved to Denmark for her studies and professional development elaborated on the role that better and cheaper digital connectivity plays in her preference for living in Denmark:

“No, [I don’t want to go back to Greenland.] It’s too small for me and also due to the Internet. I think when I was home two weeks ago, I used almost DKK 2000 (around £230)¹ on Tele2 [her mobile-phone provider]. Because I need to be online at all time – because I just need to. Not that I am using it but I got to be online. But it’s very expensive ...” (P5, Denmark)

P3 talked about the motivations of Greenlanders to move to Denmark more generally, highlighting the central role of language – both as a hurdle to integration as well as key to access education at a Danish university:

¹At the exchange rate DKK-GBP from December 2019.

“There are different reasons (why Greenlanders) move to Denmark: to study, some just to try something new, a new job, new challenges, some have health issues where they can only be treated in Denmark, there are also some who move here after they retired because you do not get so much pension in Greenland and so they come here because they get more money here in Denmark. For some it is also when they retire and the children live in Denmark and you want to be closer to the family and for some it is also some kind of escape. So if you want to leave some problems behind. So it’s very varied why people come here. [...] Many come to Denmark for ‘efterskole’ . . . to improve their Danish because it is quite important, for example if you want to study in Denmark, that you know a lot of Danish. And there have not been any preparatory courses so far and that was very difficult for many, so in the first few days many of them returned to Greenland because they missed their family a lot or because they had found it difficult with the language or the humour and just did not feel comfortable. And they talk about it, I think, about providing preparatory courses for young people: How will it be? What can you expect? But what would you do, [offer these courses] for everyone [who wants to move to Denmark]? I think it could be difficult.” (P3, Denmark)

P3 discusses a lack of preparation and necessary information about e.g. cultural differences, especially for young Greenlanders who come to Denmark. The Greenlandic Representation in Copenhagen offers preparatory classes for Danish professionals who are relocating to Greenland [452]. There is, however, currently no equivalent for Greenlanders who are planning on moving to Denmark, except for a website that has been designed by the Greenlandic Houses: “Kend Danmark” (Know Denmark) (see Figure 7.2).

This platform aims to inform Greenlanders who are contemplating a relocation to Denmark while also trying to disseminate unjustified expectations and prevent potential misunderstandings that might arise once arrived in Denmark. Besides recommendations regarding the relevant paperwork and preparations, the website also reminds readers about the difference in population size and hence anonymity and community dynamics: “In Denmark, you are among many more people than you normally are in Greenland. In Denmark, not many people will know you” [453]. It also warns that “in Denmark, four times as many Greenlandic children as Danish children are placed in foster care. The Greenlandic upbringing may well cause concern with the public authorities in Denmark. That is why efforts are being made for the families of children from Greenland” [453]. It further states that Greenlandic parents might under- or overestimate



Figure 7.2: This banner advertises the website “Kend Denmark” in the Greenlandic House in Copenhagen. It is placed on a wall behind two of the publicly accessible computers (author’s own image, November 2017).

the weather conditions in Denmark: ”...some children therefore get too little clothes in the winter and too much clothes in the summer. It can cause concern in schools and in institutions. You must pay attention to dressing your child according to the weather” [453].

Besides the effort to inform Greenlandic citizens about potential cultural and practical differences, it can also be argued that the website prepares Greenlanders for experiencing discrimination on the base of their Greenlandic origin, cautioning the reader for instance that clothes unsuitable for Danish weather conditions might arouse the suspicion of public institutions. The website further describes a sufficient level of Danish, in line with P3’s observation, as one central element for successful integration in Denmark. P2, who is Danish but has strong links with Greenland, agrees with the importance of having sufficient language proficiency, however, the participant further discusses the potential impact of distorted images about life in Denmark:

“Well, the biggest problem is of course the language. They think they are good in Danish but probably aren’t. They think they can just get a job like this and, you know, they can’t. And they think that they can just get an apartment, and they can’t. So they just have to stay over at a couch or whatever at the people they know and of course all people get tired of that, also the ones concerned. And I think some

of them know Denmark as fairy-land, I think. They visited in the summer, they've gone to Tivoli and the zoo or whatever and they think that's the way of life here. But there is a reality as well here. And you can't afford your housing or not having a job, you cannot support yourself, even if you get benefits, it's not – you know. And a lot of people, a lot of Greenlanders coming to Denmark are also having social problems. And it's also increasing when you are away from home so a lot of them also have alcohol problems or even drug problems. Not as much hard drugs but Marijuana... And then of course a [big] proportion of money is allocated to that and then they sort of like have a reroute in life.“ (P2, Denmark)

P2 hence sees a risk of entering a social *downward spiral* if Greenlanders arrive unprepared to Denmark, guided by unrealistic expectations. Yet, it should also be noted that this quote is drawing a largely one-sided, negative image of rather naive Greenlandic newcomers who are likely be affected by social problems. The participant, however, continues by highlighting that these cases are not representative and draws attention to the frequent incidents of discrimination that Greenlanders have been exposed to in Denmark:

“There is a lot of, what shall I call it? – prejudice in Denmark around Greenlanders. That they are all very drunk always, and of course there is a large number of people that are having social problems and they are very visible in the area. You can tell it's a Greenlander, in the ethnic and then, if it's only 200 or 300 then it's like every Greenlander is an alcoholic. Or every Greenlander is a drunk... But there is about 18.000 Greenlanders living here in Denmark and some of them are just like you and I and have a very good life but there is an expectancy amongst the Danish: ‘Ah, you are Greenlandic, you can't hold your drinks!’ and that's quite annoying for many of them.” (P2, Denmark)

The participant critically notes the presence of discriminatory and prejudiced viewpoints that prevail in the Danish society. Overall, all participants who live in Denmark adopted a comparative approach throughout their interviews. Juxtaposing their experiences gained during their time in Denmark with their life in Greenland, most participants appeared to raise problematic issues and critical opinions during their interviews. This approach differed fundamentally from the experiences acquired by the researcher while conducting fieldwork in Greenland, where most participants actively avoided to engage in any critical reflections or revealed such views only at a later stage of the interview or focus group. Cases of experienced discrim-

ination through various prejudices thus emerged repeatedly. One participant P9 highlighted: *“We don’t live in the 18th century. I spoke to some Danish people and they still believe we live in the Igloo. Yes, stupid.”* P7 elaborated on these misrepresentations and their origin in the Danish school system:

“I know that in the first year of school they have some projects, where they have a theme and sometimes its Greenlandic and Greenland and then they have to get to know Greenland and the Greenlandic culture and the weather and the culture like hunting or whatever we are doing up there. But not generally, in high school or university or anywhere else, unless you choose it. [...] So yes, I would say that people in Denmark don’t really have a clue about Greenland or Greenlandic culture. [...] It’s just that they don’t really care, they are just used to Greenland being a part of Denmark and that is all they need to know and then it’s also that the Greenlandic people here in Denmark drink a lot and that is just annoying. [...] Yes, people are very judging and discriminating and what’s it called, ... ignorant, yes. [...] Because we have a cooperation going on and the whole thing about colonisation back then, I think that the Danish people owe the Greenlandic people to get to know them.” (P7, Denmark)

The fieldwork in Denmark was conducted just after the term “grønlænderstiv” had been added as new entry to the Danish dictionary *Den Danske Ordbog* [454].² Even though described as “outdated” and “degrading” in the dictionary, this development aroused great criticism from part of the Greenlandic community. The temporal overlap of this dictionary addition and the fieldwork might have contributed to the numerous testimonies of discrimination and misrepresentation. Additionally to P7, also P2 linked these cases of discrimination back to flaws in the Danish education system:

“Greenland is actually a very good subject in third year, they learn about geography, they learn about demography, they learn about nature and animals and population and all that, so a lot of Danish schools have these subjects, working on Greenland but that is all they know. And they [might] use some literature that is quite old, that Greenlanders still live in igloos or earth holes and that it’s not a modern society. For instance, we have a channel in Denmark called DR3. Tonight [they will broadcast

²Literal translation of “grønlænderstiv”: “Greenlander-drunk”. The term is described in the Danish dictionary as a colloquial term used to describe the state of being heavily intoxicated by alcohol. The dictionary entry further notes that this term is very degrading [454].

a show] called ‘Secrets from Nuuk’ where they have followed a lot of young people. And I think documentaries like that are very good for young people to see: ‘Ah! They live just like you and me. They have their mobile [phone] and they drink and they go to parties on Friday night.’ And all that... but then again, DR3 is a very small channel in Denmark, almost nobody is watching this channel. Of course you can see it online as well, but who does that? I don’t know.” (P2, Denmark)

P2 hence emphasises a lack of (correct and updated) information on Greenland in the Danish public realm which the participant sees as a likely source of the described prejudices. P11 also discusses this lack of information in the Danish public sphere more generally referring in particular to the representation and role of Greenland in the Danish media:

“There is an agreement between the government and the different parties in the Danish parliament and then DR, the national TV in Denmark, that there needs to be much more knowledge about the Realm, about Greenland and the Faroe Islands as well. So that is quite interesting. [...] Actually there was an agreement before but I had a meeting, let’s say it was 2 years ago, with the director of DR and you know, she was asking what could [a new approach] be. And one input that I gave her is that, I think it’s much more important to have a different perspective. And to see that people in Greenland are also very normal, they have normal lives and normal issues, and I think that a lot of things that you see in this TV show – ‘Hemligheder fra Nuuk’ (Secrets from Nuuk), you know, it could be a young person from Denmark, a young person from London that could have the same issues. So even though we have a lot of social issues, I am one of the persons who has been actively advocating that we need to acknowledge these issues, but also to solve these issues. But it is also important to know that people in Greenland are just normal people as well and the majority actually is normal people. It is quite interesting.” (P11, Denmark)

P2 also has the impression that there is an expectation on the Greenlandic people to tell their own story through the development and provision of updated school materials:

“Yeah, that is actually a discussion that we have had for almost many years, because the Danish authorities think it’s not their problem telling them [the Danish people] all about Greenlandic society – it’s the Greenlandic society who has to tell their story. So for a number of years there has not been any initiatives whatsoever

towards [changing the content on Greenland in] the Danish school-system.” (P2, Denmark)

The interviews conducted with members of the Greenlandic community in Denmark have shown, in line with previous reports Socialt Udsatte Grønlandere [85], Baviskar [278], that many Greenlanders move to Denmark to advance their academic or professional careers or for other personal reasons. Also the overall everyday lifestyle was mentioned on several occasions, including in reference to the more stable and cheaper digital connectivity in Denmark which participants had gotten used to during their time in Denmark. Improved digital connectivity allowed participants to stay in contact with family and friends in Greenland and to keep themselves informed about developments in Greenland and within the Greenlandic community in Denmark. Websites like “Kend Denmark” had further been introduced to prepare and support Greenlanders prior to moving to Denmark. The testimonies of the Denmark-based participants also showed that about 50 % of them were aware or had experienced discrimination in their everyday lives in Denmark. Several of the Denmark-based participants, notably P2, P11, P6 and P7, linked this back to a lack of accurate information on Greenland in the Danish public realm, including Danish media and the Danish school curricula.

Discussion

7.5 Self-Determination and Ontological Security – the Digital Representation of Everyday Life

The previous two chapters looked at GoG’s efforts to advance the access and use of digital services in Greenland’s public sector and how these developments may also advance or disrupt notions of security and self-determination on both a local as well as international level. The transition of many basic services into the digital realm thereby emerged as central in the Greenlandic context, as geographical distance and immobility continue to set certain boundaries to citizens’ public engagement. Yet, as became apparent particularly in Chapter Six, the increasing accessibility and use of digital communication platforms has pushed the concept of self-determination beyond its strictly legal and political dimensions. By opening new possibilities to enable and foster bottom-up security practices, improved digital connectivity has added a new dynamic to the Greenlandic independence debate, increasing the focus on individual and

collective security concerns and well-being.

Chapter Six identified, however, also a number of entrenched dividing lines that may reinforce or disrupt these bottom-up efforts. Online fora that assumed a transformative character for some were perceived as limiting and stifling for others. Mere accessibility of digital services thus emerged as only one aspect leading to regional (digital) disparities in Greenland. Also language, socio-economic background as well as gender were identified to be factors that functioned as, sometimes inadvertent, *gatekeepers* to digital “safe spaces” in which identity questions would be negotiated and individual as well as collective self-determination shaped and practised. The formation of such disparities and consequential sub-groups is a common phenomenon across the Internet [455]. Yet, as this chapter has shown, in the Greenlandic context, the consequential digital information sharing practices may have a profound impact on the representation of everyday Greenlandic digital and visual culture. The following discussion and analysis of the findings presented in this chapter contribute to the understanding of the potential consequences of the described disparities, particularly with regard to the Greenlandic identity formation process through the framework of ontological security. Arguing that the current conditions and dynamics favours a small group to shape the representation of Greenlandic culture online, the impact of potential misrepresentations on ontological (in)securities and self-determination are further discussed in this context, building on the insights shared particularly by members of the Greenlandic community in Denmark.

7.5.1 Claiming Back Information Flows?

As outlined in the Chapter Two, information flows within and especially beyond Greenland have long been regulated and controlled by the entities in charge of and able to maintain, alter and develop the relevant communication infrastructure [50]. Channelling and confining the flow of accessible information within Greenland was essential for the colonialists’ missionary work and the general establishment and maintenance of Denmark’s colonial rule [50]. However, deciding what kind of information would leave the island was central with regard to how life and the Danish activities in the colony would be framed and perceived at home in Europe; geared to reassuring, romanticised colonial imaginations [89]. The lasting effects of this selective and externally dominated flow of information on Greenland might today be found in the cases of continuous stigmatisation of Greenlanders in Denmark [90]. Accordingly, several participants referred to the limited access to general information about Greenland and the consequences thereof with regard to Greenland’s standing within the Danish Realm as well as globally:

“It is hard to find information on Greenland online – it almost feels like we are protecting this kind of information or we don’t consider it important enough to put it on the Internet. If I try to find information on a specific tradition it always ends up being in an old book in some archive. So how will other people find an image of Greenland?” (P20, Nuuk)

Misrepresentations were addressed by a majority of the interviewees; both private individuals as well as government representatives addressed questions of misrepresentation and/or their effects. These testimonies of stigmatisation were introduced mostly unasked and unrelated to prior questions by the interviewees themselves. Participants hence complained about ignorance and outdated images of Greenland, such as Greenlanders living in igloos or “*earth holes*” (P9). The experience of being confronted with such outdated ideas about Greenland and its inhabitants was, however, mainly and most vividly described by participants in Denmark or participants who had lived in Denmark where they had been subjected to prejudices and discriminatory acts. As described in the previous section, several participants linked the experiences lack of recognition back to flaws in the Danish education system and a lack of modern representations of Greenland:

“...the idea of Greenland in Denmark is a very standardised one that was created in the 20s and the 30s, the 40s and the 50s by the people that went on expeditions to collect as much old-fashioned stuff as possible. At that point, people up in the North still lived on a very traditionally based way [...] but the stuff in the schools has not been updated at all. [...] We live in the same Kingdom god damn it but they don’t know nothing about it [...] they should get the general idea that we are a fairly modern people.” (P33, Nuuk)

Another participant who works for the GoG underlined a similar perspective in the following statement:

“...there needs to be much more knowledge about the Realm, about Greenland and the Faeroe Islands as well [...] because it is part of the Danish history in many ways so I think it is important to have this knowledge for the young people of Denmark as well.” (P11, Denmark)

These misrepresentations but also the feeling of not being in control of the public image of one’s own culture are likely to affect senses of ontological security. Understanding the development and role of information flows is thus essential when exploring the on-going Greenlandic

emancipation and identity formation processes. The relation between concepts of recognition and ontological security has been highlighted by several scholars, particularly within IR and social psychology [98, 456–458]. As outlined in Chapter Three, ontological security focuses on “society and its need for a stable and continuous self-concept” [456, p.582]. Chernobrov [456] further elaborates that the narratives that provide these continuous concepts of self are not in-alterable but permit “narrative dynamism as long as evaluative continuity in the relationship – a positive self – is preserved” creating a “narcissistic consistency which is tied to identity survival” [456, p.588]. Greve [458, p.858] hence highlights that “[d]enying . . . recognition threatens the self” while Gustafsson [457] underlines that peace and friendly relations depend upon “some form of mutual recognition; and for it to be stable, such mutual recognition arguably needs to be routinised” [457, p.618].

Following the statements of this work’s participants, it can be found that many of them felt and expressed that this mutual recognition is not (sufficiently) fulfilled as discriminatory and outdated imaginations are perceived to prevail in the Danish society. Scholars who have worked on the link between recognition and ontological security have particularly focused on the way misrecognition can affect bilateral relations [31, 457]. Importantly, the Greenlandic context adds another dimension to this debate as *bilateral* relations are still in the process of taking shape following the SGA of 2009 and in line with the continued independence debates. Yet, as shown by this chapter, misrecognition, its origins and impact on ontological security are not only central to Greenlandic self-determination on a political level but may also exert influences on an individual and collective level. For many Greenlanders, whose passport, and for some also part of their roots or their native language is Danish, lived experiences involving misrecognition and discrimination are perceived a denial of “public recognition as equal citizens” [98, p.16] undermining individual senses of ontological security.

As mentioned earlier, required changes to address these misrepresentations revolved in the participants’ opinion mainly around the claiming back of information flows and public perceptions and representations. As demonstrated in the previous chapter, another aspect that might add to the inaccessibility of adequate information on Greenland might linked to the fact that local knowledge today tends to be shared using Facebook. It hence stays within “closed” communication networks which are either guarded through privacy settings or language barriers and consequently not accessible for a wider public.

Several entities that actively work with making information on Greenland more accessible on a global scale were looked at in this chapter. While representatives from the cultural sec-

tors highlighted their “educational” responsibility (P33) or their role within society to question preconceived ideas (P18), participants who work in the tourism industry noted their efforts to provide “informative” services as necessary preparation for (potential) visitors. Digital services thereby emerged as central agents in the dissemination of this information but also in the identification of target groups and the most effective content to attract tourists. The Greenlandic tourist industry thereby emerged as the sector with the strongest focus and presence on digital communication platforms. Adapting their content first and foremost to the identified target group, it must be pointed out that their respective social media/marketing strategies would not necessarily focus on the depiction of “modern Greenland” or critical and balanced engagement with Greenland’s (colonial) past that P33, P18 as well as other participants including P11 and P37 were missing from public discourse and media coverage concerning Greenland. Given the encouragement from the entities in question to share impressions using their respective hashtags to generate UGC it is furthermore likely, that tourism related content generally and content in line with the respective marketing strategy in particular will be prevalent within digital communication networks. Hence, while promoting the continuous upturn of the Greenlandic tourism industry, strengthening the local economy and thereby fostering Greenland’s plans of pursuing full political and economic independence, the dominant position of Greenland’s tourism boards should be noted in this context.

An overarching theme that emerged across the three groups linked to the notion of *authenticity*. How the “real” Greenland could be represented using “authentic” visuals to promote “truth” was a matter close to the heart of the individuals and entities presented in this chapter, but it also ran like a thread across interviews, focus groups and casual conversations during the fieldwork. The centrality of this theme suggests that this question also constitutes the pivot of the Greenlandic identity debate. Debated and sought after, static and well-defined for some, dynamic and impalpable for others, questions of such kind are bound to spark public debate today and for generations to come. Yet, as long as explorers’ and visitors’ “embodied experiences” of Greenland as an empty and backward place dominate representations and information flows, negative repercussions on Greenlanders’ senses of ontological security are likely to occur.

However, as shown in the previous chapter, there have been various ground-up efforts beyond to ones described here to claim back these information flows and to form more critical, pluralistic and inclusive counter-narratives. In this context, the potential role of digital technology to claim back and re-shape information flows to foster self-determination on an individual as well as collective level has become apparent.

7.6 Concluding Remarks

This chapter presented the “alternative voices” of three groups whose experiences, goals and knowledge cast further light on the role of digitalisation in Greenland’s modern identity formation processes. Different concerns and priorities with regard to the visual representation of Greenland (through digital means) emerged. Juxtaposing insights from Greenland’s culture and tourism sectors with the testimonies from the Greenlandic diaspora in Denmark it became clear that digital technology is seen by all groups in question as a facilitator of practices that foster both collective and individual self-determination: economically and/or ideationally. However, employing an ontological security angle, the chapter also critically assessed a number of discrepancies that emerged from the findings. While members of the Greenlandic community in Denmark complained about the predominance of simplistic and outdated information and visual representations everyday life in Greenland, Greenland’s tourism industry appeared to encourage the use of “cliché” imagery to appeal to their identified target groups. Based on findings from previous chapters that revealed a number of connectivity inequalities across the Greenlandic society, the concern arose that impressions from and for tourists would dominate modern representations of Greenlandic culture online, leading to a distorted image.

Chapter 8

Conclusion

Greenlandic digitalisation has been advancing rapidly over the past years, borne in particular by GoG policies [3, 355] that present improved access to digital services as a building block for enhancing Greenland’s *de facto* political and economic self-determination. The two digitalisation strategies discussed in Chapter Five portray the improving network of digital infrastructures and the increasing use of digital technologies as tools to bridge geographical distances and to overcome infrastructural limitations as well as historical inequalities. Within HCI research, the objective to foster the empowering potential of digital technologies in the public sphere through more inclusive and relational digital services has been brought into prominence in particular by digital civics, including the work of e.g. [157, 215, 329]. By highlighting the enablement of individual Greenlanders’ capabilities through digital means [192], irrespective of their location, GAD’s digitalisation policies aim to “address political concerns [and give] a voice to under-represented communities” [157, p.61] – a central idea advocated by the digital civics research agenda.

Yet, the Greenlandic context differs in various respects from other contexts analysed in the digital civics and broader HCI literature. As shown by the present work, the Greenlandic approach conceptualises digitally enabled civic empowerment predominantly through notions of *digital citizenship* and *indigenous data sovereignty*. The concept of (digital) self-determination advocated through these strategies connects the individual emancipation to the political and legal self-determination of Greenland and its people. This approach is exemplified by P13’s following statement which links better accessibility of streaming services to GoG’s goal to replace Danish by English as first foreign language taught in schools:

“ [...] we have the youngsters using the Internet as freely as you have been used to in the EU, [...] so I expect them to also adopt the English language through yes, streaming video, both Netflix and YouTube and things like that, because it wasn’t properly available previously. That actually also fits really well into the educational strategy where they would like to replace Danish as the first foreign language with English [...] So in that way we can actually use digitalisation to help achieve independence and as you have probably discover independence is a big topic.” (P13, London)

Greenlandic digitalisation and the associated concepts hence tie in with the overarching local identity debate and GoG’s proclaimed goal to reach further independence from Denmark. As competences in the area of foreign and security policy remain with the Danish government in Copenhagen, digitalisation offers GoG a novel stage to promote and enhance its standing as an autonomous political entity, enabling Greenland to debate and reach international agreements, such as e.g. the Greenlandic-Estonian collaboration on *Pitu* for secure digital data exchange [370]. Digitalisation also provides GoG with new pathways to define further aspects of administrative sovereignty, for instance through the potential introduction of Greenlandic e-IDs and the centralisation and digitisation of Greenlandic data in Greenlandic databases [3] and thus enhancing “Indigenous decision-making [as] a prerequisite for ensuring Indigenous data reflects Indigenous priorities, values, culture, lifeworlds and diversity” [459, p.237]. As presented in Chapter Five, digitalisation and its relevant infrastructures thus emerge not only as a tool for a more inclusive public sector but also for the securitisation of Greenlandic self-determination and modern identity formation more broadly.

However, as shown by previous research, e.g. [2, 460], and voiced by participants in the present study, the processes that shape modern Greenlandic identity formation extend beyond the state level and are deeply intertwined with everyday practices which extend to the digital sphere. Again, language offers an example, as the everyday parallel usage of different languages is affecting feelings of belonging:

“ [...] because when it comes to the debate about independence, I think some people ...I don’t necessarily think they want to have people divided in the society, but I think in many ways language divides people, Greenlandic and Danish. Because it is such a strong symbol of whether you are Greenlandic or whether you are Danish.” (P11, Denmark)

Critical feminist security scholarship and particularly the concept of positive security as framed by scholars including Roe, McSweeney and Booth [27, 226, 227], allow to integrate and consider these experiences as part of security discussions. These conceptualisations of security thus help to gain a more contextualised understanding of how digitalisation is transforming and disrupting everyday practices and notions of self-determination from the ground up. Critical security theories therefore offer a more inclusive conceptualisation of security in the Greenlandic context, not limiting the relevant analyses to the dichotomous notions of identity that generally underlie the negative security frameworks which dominate most of security-related HCI literature.

As illustrated by Chapter Six and Seven and the work of scholars like Gad [2], the dichotomous legacy of Danish colonialism in Greenland continues to influence great parts of the Greenlandic identity debate. Testimonies from the Greenlandic community in Denmark as well as representatives of the Greenlandic culture and tourism sectors discussed in Chapter Seven emphasise the complexity of colonialism's legacy that continues to affect participants' lived experiences and (online) representations of Greenland. As presented by this research, digitalisation risks to expand and amplify existing regional, gendered, socio-economic and cultural antagonisms. Digitalisation and associated developments such as individualisation and datafication thereby add to a number of ongoing fundamental transitions, including Greenland's exposure to the environmental crisis. It has been argued that these developments affect, challenge and change local senses of ontological security [240] as basic practices and assumptions around notions of identity, belonging and security are shifting.

Drawing on critical feminist security theories, particularly the work of Hudson [6] and Hoogensen Gjørsv [25] with regard to collective security practices, this work foregrounds the digitally enabled practices and initiatives which are addressing these transitions and their security impacts from a ground-up perspective. Applying these theoretical frameworks helped to identify "digital safe spaces" [24] in which participants, women in particular, would cultivate and develop practices to address numerous everyday security concerns. These related to gendered insecurities but also the broader ontological insecurities arising from the manifold ongoing transitions in the Greenlandic society.

Exploring the wider societal consequences of the Greenlandic digitalisation process, the main focus lay on individual and collective experiences and ground-up efforts to address everyday security concerns, challenges and opportunities that arise from the increasing access to and use of digital connectivity. Based on the findings of the present research, digital connectivity

emerged not as an encompassing solution for the country's various challenges, but rather as a vehicle for more inclusive civic engagement. Different from previous HCI literature, this thesis engaged with the role of security and securitisation that underlie these processes by using critical feminist security theories. The research underpinning this thesis built on three research questions which enabled an approach where the topic could be explored from different angles and perspectives and where the voices of different stakeholders involved in and affected by Greenlandic digitalisation could be integrated: (1) policy makers (2) Greenlandic citizens as well as (3) the cultural and tourism sector along with the Greenlandic diaspora in Denmark.

Research Question 1 *How does access to digital technology and digitally mediated networks impact upon individual Greenlanders ability to perform, realise and benefit from their citizenship?*

The present work highlighted that the citizenship concept lies at the heart of the Greenlandic independence debate and is hence also essential to the GAD's digitalisation strategies. Employing a positive/negative security framework [27, 461], Chapter Five discussed GoG's efforts to securitise and define Greenlandic statehood through digital means. The analysis of the two most recent GAD strategies along with associated insights from participants presented digitalisation both as a potential enabler of equal rights and opportunities, irrespective of location within Greenland, as well as an emancipatory agent in the process of Greenlandic disengagement from Denmark. Measures including the introduction of digital (Greenlandic) ID cards, the goal to establish server farms as well as the introduction of the term "digital citizen" in GAD's latest strategy [3] were interpreted as a novel approach towards Greenlandic independence, nation-building as well as nation-branding, focusing primarily on positive security in form of enabling individual capabilities and securing digital self-determination. In the light of failed centralisation and modernisation policies in Greenland's colonial past, GoG presents digital technology as a tool for more inclusive and adaptive nation-building and to circumvent and undermine the obsolete (infra)structures in place. However, Chapter Five also found that the strategies partly build on the assumption that simply providing more and better connectivity will suffice in meeting the objectives outlined by GoG. The strategies thus offer only limited insights and experiences from "the ground", i.e. from individuals and communities, also as they primarily build on quantitative insights.

Research Question 2 *What are the motivations, opportunities and limitations for Greenlanders to share digital content on social media, within and beyond Greenland – and for what purpose?*

In order to better understand how these measures and political objectives impact upon the everyday life practices of individual Greenlandic citizens, the second research question addressed the motivations, opportunities and limitations for Greenlanders to share various content through digital means, within and beyond Greenland. While many participants highlighted new personal development opportunities, also a number of challenges came to the fore. Chapter Six, hence presented and discussed digital *antagonisms* through a focus on socio-economics factors, location, language and gender. The findings showed, *inter alia*, how continuous unequal access to digital connectivity can evoke feelings of insecurity and misrepresentation, underpinned by questions of cultural identity, isolationism and increasing political and economic independence [45].

However, Chapter Six also identified a number of ground-up, security-enhancing practices. Exploring how Greenlanders utilise digital technology to bridge geographical distances and the resulting everyday security challenges, this work further revealed a close intertwining of some participants' online civic engagement and their modern representation of Inuit culture in the context of Greenland's identity-formation process. The creation of digital "safe spaces" for collective security practices, where participants turned their everyday online (inter)actions into one main site of security provision, hence emerged as a both a central motivational factor as well as opportunity to enhance individual capabilities for many participants (as in [5, p.10]).

In this context, it also became clear that digital technologies are not necessarily replacing and optimising existent social and economic structures; given the specific Greenlandic context, improving digital connectivity rather allows for additional ways of interaction and exchange that would otherwise not have been possible.

Research Question 3 *How do digital information sharing practices among Greenlanders influence the representation of everyday Greenlandic (digital and visual) culture?*

Lastly, this work explored how digital information sharing practices influence the representation of everyday Greenlandic culture. Bringing three different groups into conversation – representatives from culture, tourism and the Greenlandic diaspora in Denmark – Chapter Seven demonstrated how Greenlandic representations continue to be dominated by outdated and externally-defined imaginations and the risk of the further commodification of such imagi-

nations in a digital context. As stressed particularly by the Denmark-based participants, these representations form the main sources of continuous discrimination and prejudice against Greenlandic people. Through the theoretical framework of ontological security, this chapter focused on Greenlandic efforts to digitally reclaim information flows within and beyond Greenland to create emancipatory (post-colonial) counter-narratives.

Contributions

The Greenlandic setting has received little to no attention within HCI and digital civics scholarship to date. Yet, the country’s specific historical background and geographical disposition offer a unique setting to study the effects of increasing digitalisation on identity formation and civic empowerment in geographically remote communities. Studying the digitalisation processes under the relatively “extreme” circumstances of Greenlandic immobility, social isolation and communal interconnectedness can provide additional in-depth insights into specific phenomena that affect (geographically) marginalised communities more broadly. Employing critical security theories, e.g. [6, 28] to this specific setting further presents the value of a broader conceptualisation of security to understand digitally enabled civic empowerment. The present work documents empirical, theoretical and methodological contributions to HCI research:

Empirical. Only limited research within HCI and beyond has addressed the unintended societal implications of digitalisation in Greenland through qualitative studies. In like manner, the two GAD strategies discussed in Chapter Five build predominantly on quantitative data and international guidelines as points of reference and to track and assert improving digital connectivity in Greenland. Against the backdrop of the material and environmental precarity of the country’s digital infrastructures and the associated challenge to provide equitably distributed connectivity, the present work however illustrates how certain goals laid out in the strategies might strive for an ideal beyond the local socio-material realities. Employing an inductive, qualitative methodology, this research brings Greenlanders’ lived experiences of digitalisation to the fore. Chapter Six addresses, for instance, the frustrations and challenges experienced by participants with regard to varying degrees of digital connectivity across the country, resulting in e.g. unequal access to educational information (P33), inability to work effectively across different municipalities (P11) and family tensions (P34). The present work proposes that the integration of more qualitative, ground-up insights in future digitalisation policies could con-

tribute to the development of more pluralistic and contextualised policies and socio-technical designs that better acknowledge and integrate existing security challenges and practices.

Theoretical. This study’s theoretical contribution to existing HCI and digital civics scholarship, outlined in Chapters Two and Three, stems from its use of critical (feminist) security studies to bring aspects of post-colonial computing and digitally enabled civic empowerment into conversation. Proposing a stronger consideration for collective security practices as an integral feature of technology and policy design, this work further contributes to the broadening of the security concept in the HCI and digital civics literature and highlights the importance of integrating positive and collective notions of security.

The insights drawn from this contextualised study underline the importance of examining the role of the transformative and disruptive effects of technology in the setting of rural and geographically remote communities and the importance to co-design interventions with communities to nurture emancipatory, ground-up security practices to counter power imbalances. As also stressed by this work e.g. through the example of the educational work of Nuuk’s museums presented in Chapter Seven or the Hashtag #inuitattoo discussed in Chapter Six, supporting community-driven engagements can enhance opportunities for identity-building and knowledge sharing across socially isolated and geographically disconnected communities (as in [5]). In this context, the present research also adds to literature on postcolonial nation-building.

Methodological. The methodological contributions of this thesis lie in its focus on the co-production of knowledge and shared learning through a combination of qualitative research methods. Researching digitalisation processes with largely non-digital methods allowed for an opportunity to listen to, understand and foreground the individual experiences, concerns and hopes of the participants. Exploring these aspects beyond mere digital usage patterns through the utilisation of *inter alia* participatory mapping allowed for co-ownership of the research and highlighted ground-up collective approaches to digital self-determination, especially for women in the creation of “digital safe spaces”. Future policies could seek to institutionalise or leverage these existing support mechanisms to both address security challenges in a more sustainable and inclusive way as well as to foster local initiatives. Whilst specific to the Greenlandic context, this study demonstrates the central role of HCI research/ers in nurturing and supporting emancipatory and empowering digital designs and policies in remote and rural areas through responsibly conducted and community-focused research.

Future Research

This study was based on data collected from fieldwork in both Nuuk, Greenland as well as Copenhagen and Aalborg, Denmark. Looking ahead, future studies could fruitfully explore the topic of Greenlandic digitalisation further by adapting a comparative approach, juxtaposing the experiences of communities who currently live in different parts of the country. Part of the present work focused on the effect of digitalisation on the security practices and concerns of Greenlandic women. More research is needed to understand the how social inequalities prevalent in Greenland, especially those affecting women, migrate to digital spaces and how ever more complex digital infrastructures might aggravate social inequalities associated with gender and indigenous populations. The present work also discussed the role of the tightly-knit social communities in Greenland within a digital context. How these network affect Greenlanders trust in digital services would be another avenue for future studies.

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Appendix A

Participant Information

Study Denmark					
Pseudonym	Gender	Occupation	Age Group	Interview Type	Approx. Interview Length (time recorded)
Participant P2	F	Public Sector	55-64	Interview (recorded)	90min (50min)
Participant P3	F	Social Work/Art	35-44	Interview (recorded)	45min (20min)
Participant P4	F	Administration	35-44	Interview (recorded)	30min (15min)
Participant P5	F	Student	25-34	Interview (recorded)	30min (20min)
Participant P6	M	Unemployed	25-34	Interview (recorded)	15min (10min)
Participant P7	F	Student	25-34	Interview (recorded)	90min (40min)
Participant P8	F	Social Work	55-64	Interview (recorded)	20min (10min)
Participant P9	M	Engineering	35-44	Interview (recorded)	30min (15min)
Participant P10	M	Retired	65-74	Interview (recorded)	45min (30min)
Participant P11	F	Public Sector	35-44	Interview (recorded)	90min (60min)

Table A.1 This table offers an overview and additional information regarding the participant demographics of the Denmark study.

A.1 Overview of Participants - Denmark Study

A.2 Overview of Participants - Nuuk

Fieldwork Nuuk, including short stay in Copenhagen					
Pseudonym	Gender	Occupation	Age Group	Interview Type	Approx. Interview Length (time recorded*)
Participant P1	F	Social Work	25-34	Interview (notes)	30min (30min)
Participant P12	M	Tourism/Art	25-34	Interview (notes)	2h (35min)
Participant P13**	M	Public Sector/IT	45-54	Interview (recorded)	1h (45min)
Participant P14	M	Social Work	35-44	Interview (notes)	45min (30min)
Participant P15	M	Media	25-34	Participatory	90min (60min)
Participant P16	M	Media	25-34	Participatory	90min (60min)
Participant P17	F	Health Care	25-34	Participatory + Conversation	45min (30min)
Participant P18	F	Art/Culture	25-34	Interview (notes)	2h (2h)
Participant P19	F	Art/Culture	25-34	Interview (notes)	2h (2h)
Participant P20	F	Art/Media	25-34	Interview (notes)	2h (90min)
Participant P21	F	Health Care	25-34	Interview (notes) + Drawings	1h (45min)
Participant P22	M	IT	35-44	Interview (notes)	90min (60min)

Pseudonym	Gender	Occupation	Age Group	Interview Type	Approx. Interview Length (time recorded*)
Participant P23	F	Tourism	25-34	Interview (recorded)	50min (35min)
Participant P24	M	IT	45-54	Interview (notes)	60min (45min)
Participant P25	F	Administration	18-24	Interview (notes)	45min (30min)
Participant P26	F	Art/Design	45-54	Interview (notes)	45min (30min)
Participant P27	M	Administration	35-44	Interview (recorded)	90min (35min)
Participant P28	F	Tourism	25-34	Interview (recorded)	45min (35min)
Participant P29	F	Health Care	45-54	Interview (Skype) (recorded)	90min (60min)
Participant P30	F	Public Sector	35-44	Interview (recorded)	60min (45min)
Participant P31	M	Engineering	25-34	Participatory	3h (2h)
Participant P32	F	Unknown	25-34	Participatory	40min (20min)
Participant P33	F	Art/Culture	25-34	Participatory	3h (2h)
Participant P34	F	Student	25-34	Interview (recorded)	40min (30min)
Participant P35	F	Retail	45-54	Participatory	3h (2h)
Participant P36	F	Unknown	25-34	Participatory	45min (20min)

Pseudonym	Gender	Occupation	Age Group	Interview Type	Approx. Interview Length (time recorded*)
Participant P37	F	Art/Culture	25-34	Interview (recorded + notes)	60min (30min)
Participant P38	M	Leisure	18-24	Interview (notes)	45min (30min)
Participant P39	F	Unknown	25-34	Participatory	45min (20min)
Participant P40	F	Student	25-34	Participatory	90min (60min)
Participant P41	F	Retail	25-34	Participatory	45min (20min)
Participant P42	F	Student	25-34	Participatory	90min (60min)
Participant P43	F	Unknown	25-34	Participatory	45min (20min)
Participant P44	F	Student	25-34	Participatory	90min (60min)
Participant P45	F	Unknown	55-64	Participatory	3h (2h)
Participant P46	F	Student	35-44	Interview (notes)	1h (45min)
Participant P47	F	Retired	55-64	Conversation (notes)	1h (20min)
Participant P48	F	Art/Education	35-44	Interview (notes)	90min (45min)
Participant P49	M	Public Sector	35-44	Conversation (notes)	1h (30min)
Participant P50	F	Student	25-34	Interview (notes)	2h (45min)

Pseudonym	Gender	Occupation	Age Group	Interview Type	Approx. Interview Length (time recorded*)
Participant P51	M	Public Sector/Education	35-44	Conversation (notes)	1h (45min)

Table A.2 This table offers an overview and additional information regarding the participant demographics of the Nuuk study.

* In case an interview was not recorded but notes were taken: the time in brackets indicates the amount of time that was spent answering the prepared questions for the semi-structured interview. Most participants would, however, once this more “formal” part was over elaborate on their answers with personal anecdotes, further insights etc. (not off the record). The total length of each conversation with relevant content is indicated by the first number.

** This interview was conducted in London.

Appendix B

Documents for Informed Participant Recruitment

B.1 Information Sheet (English Version)

Information Sheet for Potential Participants

In a Research Project Investigating The Impact of Digital Technology on Identity

Introduction

I would like to invite you to participate in my study, which I conduct as part of my PhD research project. I started my three-year long project in January 2017 and am funded by the Leverhulme Trust's "Magna Carta Doctoral Centre" at Royal Holloway, University of London. The Doctoral Centre supports PhD research projects that investigate the impact of digital technology on personal liberty.



The Leverhulme Trust

Why am I doing the project?

I am writing my PhD Thesis on the way people living in Greenland/Greenlanders living abroad use different kinds of digital technology in their everyday lives. "Digital technology" includes social media, mobile devices, online applications and Internet services. The aim of the research is to inform policy makers and the public debate about Greenland's digital future.

What will you have to do if you agree to take part?

1. We will arrange a time for a meeting, which is convenient for you. If appropriate, we can meet in your home or in a public place.
2. There will be one single interview with myself. During the interview I will ask you a number of questions to learn more about your personal experiences. The interview is expected to last about thirty minutes.
3. When I have completed the project I will be more than happy to share my publications and my final thesis with you.

How much of your time will participation involve?

One interview lasting about half an hour.

Will your participation in the project remain confidential?

Yes. If you agree to take part, all of the information you give will be anonymized so that those reading reports and papers from the research will not know who has contributed to it. The personal information gathered as part of the project will not be disclosed to anyone. Your responses to the questions will be used for the purpose of this PhD project only.

Non-anonymized data in the form of e.g. the signed consent form and audio recordings are collected and retained securely as part of the research process (see below).

How will information you provide be recorded, stored and protected?

I will take some written notes during the interview. The interview will also be audio recorded, if you agree to this.

Signed consent forms and audio recordings will be retained safely in line with the Data Protection Act. All audio data will be retained until about three years after the completion of my project and will consequently be disposed of securely.

A transcript of the interview, in which all identifying information has been removed, will be retained for a further two years after this (thus five years in total). The transcripts will be stored in a password-protected database. Anonymized data will be given a research code, known only to the researcher and a master-list, identifying participants to the research codes will be held on a password protected computer accessed only by the researcher.

Under freedom of information legalisation you are entitled to access the information you have provided at any time. The data will be used for the purpose of this PhD project only.

What are the advantages of taking part?

You may find the project interesting and may enjoy sharing and contributing with your personal insights and experiences. Once the study is finished it could help e.g. policy makers in their decision-making processes.

Are there any disadvantages of taking part?

There are no known disadvantages or risks of taking part in the project.

Do you have to take part in the study?

No, your participation is entirely voluntary. You are not obliged to take part. If you do not wish to take part in the study you do not have to give a reason and you will not be contacted again.

Similarly, if you do agree to participate you are free to withdraw at any time without giving a reason and there will be no adverse consequences if you do so.

Who is funding the research?

This research is funded by the Leverhulme Trust (a British Charity).

Who has reviewed the project?

The study has been approved by the Royal Holloway, University of London Ethics Committee.

What will happen with the results of the study?

The findings will be published in form of my PhD thesis. Parts of the research will be published as e.g. academic journal articles and in form of other (academic) publications. Results will also be presented at conferences and other relevant meetings and events. Findings might also in part be shared through digital platforms such as Twitter.

What happens next?

If you are interested in taking part in the study you are asked to complete the attached consent form. We can arrange a meeting at a time that is convenient for you to hold the short interview.

Researcher:

Nicola Wendt, PhD student
Geography Department & Information Security Group
Geopolitics, Development, Security and Justice Research Group
Royal Holloway, University of London

Supervisors:

Prof. Dr. Klaus Dodds
Professor of Geopolitics
Geography Department - Geopolitics, Development, Security and Justice Research Group
Royal Holloway, University of London

Dr. Rikke Bjerg Jensen
Lecturer in Information Security
Information Security Group, Royal Holloway, University of London
Royal Holloway, University of London

B.2 Informed Consent Form (English Version)

Informed Consent Form



The Leverhulme Trust

I, the undersigned, confirm that (please tick box as appropriate):

1.	I have read and understood the information about the project, as provided in the Information Sheet.	<input type="checkbox"/>
2.	I have been given the opportunity to ask questions about the project and my participation.	<input type="checkbox"/>
3.	I voluntarily agree to participate in the project.	<input type="checkbox"/>
4.	I understand I can withdraw at any time without giving reasons and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn.	<input type="checkbox"/>
5.	The procedures regarding confidentiality have been clearly explained (e.g. use of names, pseudonyms, anonymisation of data, etc.) to me.	<input type="checkbox"/>
6.	Terms of consent for interviews and audio data collection have been explained and provided to me.	<input type="checkbox"/>
7.	The use of the data in research, publications, sharing and archiving has been explained to me.	<input type="checkbox"/>
8.	I understand that the interview data will be used for the purpose of this PhD project only.	<input type="checkbox"/>
9.	I agree to sign and date this informed consent form.	<input type="checkbox"/>

Participant:

Name of Participant

Signature

Date

Researcher:

Nicola Wendt

Signature

Date

Appendix C

Interview Guide

C.1 Interview Guide

Question for Semi-Structured Interviews

- (1) Do you have Internet access/ how do you access the Internet?
- (2) How/when/where do you access the Internet?
- (3) What digital services do you use/ for what purpose?
- (4) What kind of opportunities/benefits does Internet access offer you?
- (5) Do you ever encounter any problems/ do you have any concerns when using them?
- (6) What aspects of your life are affected by these problems?
- (7) Do you feel well-connected? (with communities that are relevant to you) / With whom do you connect online?
- (7) How could communication networks in Greenland improve?
- (7) What topics do you engage with online and are they different from topics you would address in person?
- (8) What languages do you usually use online/offline?
- (9) Do you engage with online representations of Greenland/Greenlandic culture? If yes, how and why?

Additions for Interviews in Denmark

- (1) How long have you been living here in Denmark? Why did you move?
- (2) Do you stay in contact with friends and family in Greenland? If yes: how?
- (3) Do you use different digital services/digital services differently here in Denmark compared to Greenland?
- (4) Do you feel well connected with/informed about developments in Greenland?

Additions for Interviews with Government Officials

These additions heavily depended on the specific role of the individual within the public sector. Hence, the following list includes questions from interviews with experts from different domains:

- How does improving digital connectivity affect your interaction with the citizens?
- Do these interactions differ with the Greenlandic community in Denmark?
- What role does language play for digital interactions with Greenlandic citizens?
- How do you think Greenland's digitalisation is affecting the Greenlandic society?/ What role does Greenland's digitalisation play in the independence context?
- What are the main challenges and opportunities regarding digitalisation in Greenland?
- What are the next steps with regard to digitalisation in Greenland?
- What main goals are you pursuing with regard to digitalisation in Greenland?

Questions for Participatory Focus Groups

The Map

- **Understanding Information Flows:** Please draw a map marking how important information “flows” in and around Greenland. Mark especially the *sources/underlying motivations*, the *recipients* and potential *bottlenecks* of these information flows.

The Timeline

- **Understanding the Evolution of the Greenlandic Media Ecology:** Please name the milestones that marked the development of communication networks in Greenland. Explain how these changes affected your daily life.

The Force Field

- **Understanding the Effects of Digitalisation on Everyday Lives:** Please note how improving digital connectivity is affecting your daily life in negative and positive ways. Discuss and organise the different notes according to their impact.

Appendix D

Data Analysis

D.1 Overview of Data Sources

<i>Data Type</i>	<i>Quantity/Length</i>	<i>Categorisation/Analysis</i>
Digitalisation policy	2 GAD policies	Based on post-empiricist participatory policy analysis
Field/interview notes	177 pages	NVivo, TA
Photos	665 photos	Categories: (1) digitalisation (2) everyday life (3) cityscape (4) nature
Interviews	36 interviews, 9h 53min recorded in total	NVivo, TA
CBPR-informed maps	9 in total: 4xM, 3xFF, 2xTL	NVivo, TA

Table D.1 This table outlines the different kinds of primary and secondary data that the thesis is drawing on. Abbreviations used above: M = Map, FF = Force Field, TL = Timeline, TA = Thematic Analysis.

D.2 Coding Tree

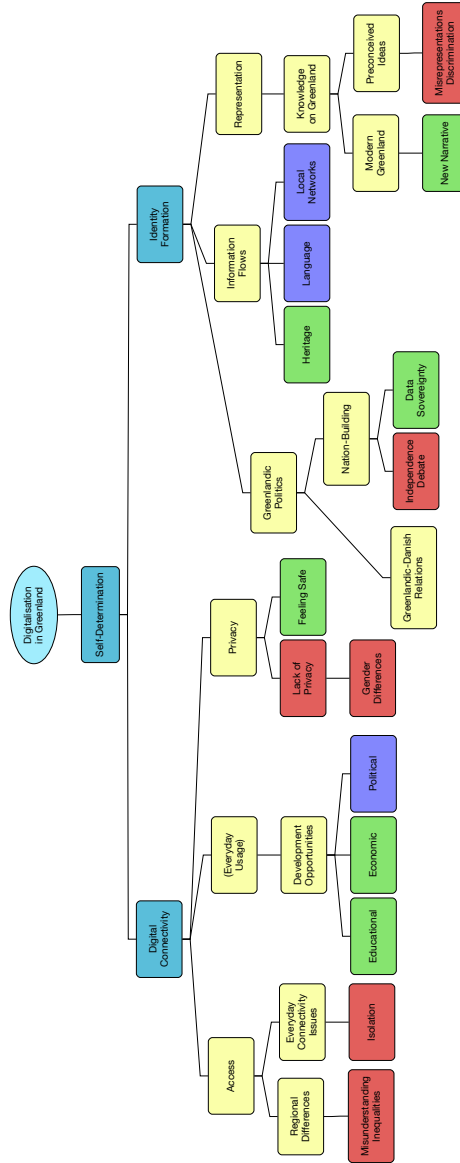


Figure D.1: This schematic visualises the organisation of the nodes that were used for the analysis of the qualitative data in NVivo. The blue nodes represent overarching themes and are connected to more specific child-nodes (yellow). The red nodes represent themes that predominantly focus on negatives experiences related to Greenland's digitalisation process or which can be conceptualised within the framework of negative security. The green nodes, by contrast, accumulate positive experiences of enablement through digitalisation. The purple-coloured nodes contain statements which link to the respective theme but contained experiences that relate to both positive and negative security [27].

D.3 Themes in Relation to Theory

<i>Parent-Node/Theme</i>	<i>Child-Nodes</i>	<i>Child-Nodes II</i>	<i>Example</i>	<i>Theory</i>
Access	Regional Differences	Isolation	“[in] Greenlandic society where it is difficult and where we are quite isolated from each other. So [Internet], you know it’s like a door to the rest of the world in a very isolated area.” (P11)	DC,DD,OS
			“No not in our town, sometimes they don’t have Internet, because it’s difficult to connect sometimes.” (P4)	
	Everyday Connectivity Issues	Inequalities	“Used to paint, I am a painter. I have been to art school here for one year. I haven’t tried oil paint. But that is how I use YouTube, I use it for learning.” (P34)	DC,SD
Everyday Usage	Development Opportunities	Educational	“money can be short and if you have limited amounts of money you can do some savings or reduce costs using automation. So the more we actually digitise the public sector, the fewer people we need to do this.”	E,PS,SD
			“So no one from EU is going to put data in Greenland unless we actually adopt something like the GDPR.” (P13)	
		Political	“Men use it to find women in Greenland.” (P46)	NS,PS,SD
Privacy	Lack of Privacy	Gender Differences	“I feel safe when I am with my smartphone. I know I can always call someone, even if the connection is not great.” (P25)	CS
	Feeling Safe			CS,E

Table D.2 This table outlines how the themes listed in D.1 link to the theories discussed in Chapter Three and provides relevant examples. Abbreviations used above: OS = ontological security, PS = positive security, NS = negative security, CS = collective security, SD = self-determination, NB = nation branding, E = empowerment, DC = digital citizenship/everyday digital practices, DD = digital divide, IF = identity formation.

<i>Parent-Node/Theme</i>	<i>Child-Nodes</i>	<i>Child-Nodes II</i>	<i>Example</i>	<i>Theory</i>
Politics	Nation-Building	Independence	“Independence might be the beginning of a healing process.” (P48)	NB
			“We are using the Danish CPR-register [...] so on the one hand: we would like to work towards independence but we have some very basic registries that is actually based on something that is in Denmark.” (P13)	
		Data Sovereignty		SD
Information Flows	Heritage	GRL-DNK Relations	“But I think, one of the, what is important for us as the representative of the people of the Arctic is to keep the focus on the people.”	NS,OS
			“Yes, it is part of the Greenlandic craft – like it’s part of the story we’d like to tell it’s both the language we would like to preserve and also the crafts.”(P8)	
				IF,NB,PS
Local Networks	Language		“There is a lot of Greenlandic people who does not speak Greenlandic and they cannot read anything on the websites if its in Greenlandic so it has to be in Danish too.” (P7)	DD,OS
			“ People will know. We call it like Kamik-Posten. Greenlandic post.” (P5)	
				CS

Table D.3 This table outlines how the themes listed in D.1 link to the theories discussed in Chapter Three and provides relevant examples. Abbreviations used above: OS = ontological security, PS = positive security, NS = negative security, CS = collective security, SD = self-determination, NB = nation branding, E = empowerment, DC = digital citizenship/everyday digital practices, DD = digital divide, IF = identity formation.

<i>Parent-Node/Theme</i>	<i>Child-Nodes</i>	<i>Child-Nodes II</i>	<i>Example</i>	<i>Theory</i>
Representation	Modern Greenland	New Narrative	“I really hope I can give it to someone else to learn about my own culture as well. And I do it digitally.” (P37)	PS,SD,NB
	Preconceived Ideas	Misrepresentation	“Yes, I spoke to some Danish people and they still believe we live in the Igloo. Yes, stupid.” (P9)	
				OS

Table D.4 This table outlines how the themes listed in D.1 link to the theories discussed in Chapter Three and provides relevant examples. Abbreviations used above: OS = ontological security, PS = positive security, NS = negative security, CS = collective security, SD = self-determination, NB = nation branding, E = empowerment, DC = digital citizenship/everyday digital practices, DD = digital divide, IF = identity formation.